This Document Consists of 116 Pages
This is Copy 6 of 14A

MLM-461

UNCLASSIFIED

DATE 6/20/50 INITIALS JHH

OH.07-5

Contract Number AT-33-1-GEN-53

MOUND LABORATORY
Operated By
MONSANTO CHEMICAL COMPANY
MIAMISBURG, OHIO

Classification changed to Unclassified by authority of Jerry D. Jones ltr. 7/31/74 by Alberta V. Weidner 8/2/74

REPORT NO. 3 OF STEERING COMMITTEE FOR DISPOSAL OF UNITS III AND IV

(Completion Report for Disposal of Unit IV, Runnymeade Road and Dixon Ave. Dayton, Ohio)

RESTRICTED DATA

This document contains restricted data as defined in the Atomic Energy Act of 1946. Its transmittal or the disclosure of its contents in any manner to an unauthorized person is prohibited.

GROUP 1
Excluded from automatic downgrading and declassification

Date: April 17, 1950

Prepared By: F. L. Halbach
F. L. Halbach
Chairman, Steering Committee

Approved By: M. M. Haring
M. M. Haring
Laboratory Director

UNCLASSIFIED

USAEC/DAO
Control No. 24,042-E

DISTRIBUTION

Copy 1. - Dr. Carroll A. Hochwalt

Copy 2. - Dr. M. M. Haring

Copy 3. - Dr. J. J. Burbage

Copy 4. - Mr. F. L. Halbach

Copy 5. - ~~Area Manager, A.E.C., Dayton, Ohio~~

Copy 6. - Area Manager

Copy 7. - Area Manager

Copy 8. - Area Manager

Copy 9. - Area Manager

~~Copy 10. - Central~~ Files Area mgr.

Copy 11. - Central Files

Copy 12. - Central Files

Copy 13. - Central Files

Copy 14. - Central Files

Issued:

TABLE OF CONTENTS

THE PROBLEM

After Monsanto Chemical Company moved its operations in the last months of 1948 and the first two months of 1949 to Mound Laboratory, Miamisburg, Ohio, Monsanto and the Dayton Area Office of the Atomic Energy Commission were confronted with the problem of the disposal of the original laboratories at 1601 W. First Street, Dayton, Ohio, hereafter designated Monsanto Unit III, and at Runnymeade Road and Dixon Avenue, designated Monsanto Unit IV.

A Planning Committee, set up to plan for appropriate disposal of these units, at a meeting on February 25, 1949 established a Steering Committee as follows:

"A general Steering Committee will be established to care for the whole job of disposal. Its primary function (and sole duty temporarily) will be to coordinate all phases of the disposal program." (From Planning Committee Report MLM C.F. No. 49-2-63, see TAB A.)

The Steering Committee was later temporarily inactivated. At a second meeting of the Planning Committee late in April, 1949, it was agreed to proceed with the work of disposal of both units under Engineering Division supervision (functioning as the original Steering Committee) with a full time Engineer-in-charge to be obtained, if possible, from Scioto project personnel. The work of the Steering Committee for Unit IV was defined to "coordinate all phases of the disposal program and see that things are carried through." (Note the absence of definition of decontamination levels.)

Thus the problem covered by this report may be defined as the decontamination and partial dismantling of Unit IV, so that an outside

contractor subsequently engaged to complete the wrecking job can carry out that part of the work with contamination, and consequent health protective measures, reduced to a minimum.

The contamination referred to throughout this report is entirely due to polonium.

FACTORS AFFECTING THE PROBLEM AND THEIR SUBSEQUENT TREATMENT

1. History of Unit IV

For a brief history of Unit IV, see TAB B, wherein are listed excerpts from the "Historical Report, Dayton Project," Document Number M-286.

2. Transfer of Radioactive Property

To date there has been no definition of maximum contamination levels for return of property such as the grounds area of Unit IV to their original owner.

The only information furnished along these lines pertain to contamination levels for equipment and material entering commercial channels as defined in a letter to the Dayton Area Manager (see TAB C). In the case of Unit IV, no equipment or material will be sent to any location other than designated storage areas at Mound Laboratory. The grounds area, after dismantling by others is complete, will be removed, as needed, so as to conform to the low levels mentioned in TAB C.

Additional information and several questions directly pertaining to the problem are presented in a letter to the Chief, Applied Biophysics Branch, Division of Biology and Medicine (see TAB D).

3. Preliminary Work in Connection with the Disposal Program

The report listed under TAB A gives the initial conclusions, plans, and recommendations of the Planning Committee. Meanwhile, the work of the Steering Committee was postponed to permit property and material not of a fixed nature to be transferred to Mound Laboratory under Evaluation Committee supervision. In addition, surveys and preliminary estimates were prepared, and informal meetings between Monsanto and Atomic Energy Commission were held to discuss various phases of the job. Finally, at a second meeting of the Planning Committee in April, 1949 it was agreed:

a. To proceed at once with the active phase of the disposal program.

b. The work would be under Engineering Division supervision (reactivated Steering Committee) with a full time Engineer-in-charge, obtained from the Scioto project, and a full time Health Supervisor, loaned from the Atomic Energy Commission.

c. The work was to be concentrated at Unit III to permit return of this property to the Board of Education as soon as possible; the work at Unit IV was to be started with a small token force to clean up, decontaminate and remove debris resulting from widespread contamination from earlier work there.

On this basis the Steering Committee proceeded with organization of the disposal program for both units, and the active work at Unit IV.

4. Disposal Project History through February 3, 1950

A summary of the work in connection with Unit IV is given in TAB E. Final health surveys are listed in TAB F. The physical work by Monsanto

was completed on February 3, 1950 and Planning Committee and Atomic Energy Commission were advised so that plans could be formulated for further work by the dismantling contractor.

5. Health Phases of the Disposal and Decontamination Project

a. Preliminary and final surveys have already been covered under TABS E and F.

b. Air samples were taken during all stages of the project, and are counted on the spot at Unit IV so as to maintain closest possible control over operations, and protect personnel from excessive airborne contamination. A breakdown of these tests is given in TAB G. This summary shows that:

(1). Fifty two per cent of all samples were less than 3,000 d./min./m.^{3}, the maximum limit for which no respiratory protection is required.

(2). Ninety and one-half per cent of all samples were less than 25,000 d./min./m.^{3}, the maximum limit for which respirators can be used.

(3). Ninety six and four-tenths per cent of all samples were less than 50,000 d./min./m.^{3}, the maximum level for which assault masks can be used.

(4). Thirty five times during the project the air levels exceeded 50,000 d./min./m.^{3}, and it was necessary to temporarily stop work in areas concerned. In all such cases, personnel were transferred to less contaminated areas, with no stoppage of overall work.

These results clearly indicate the care with which the project work was carried out as far as maintaining lowest possible air levels was

concerned. In view of the gross contamination problem at Unit IV it further shows the effectiveness of wet methods of keeping air levels down.

Personnel in many cases wore respirators for their own protection, when air contamination might be expected, even though tests later indicated such protection was unnecessary.

c. Urine samples were collected twice weekly. The summary of these checks is given in TAB H. During the project three men became "hot" with the highest count being 30 c./min./50 ml. Total "hot" time was 360 manhours out of a total of approximately 18,000 manhours expended on the project. Men so concerned were of course transferred to cold area work during the periods they were classified "hot." Since the major part of the contamination has now been removed, it is quite unlikely that future work by the dismantling contractor should result in any of his personnel becoming "hot," measured by the same limit we used, providing recommended procedures are followed.

6. Safety Record

No major or lost time accidents occurred during the work at Unit IV. Minor injuries were treated on the spot. Injured employees were sent to Mound Laboratory Medical Section for checkup and further treatment, if necessary. The Medical Section maintained thorough follow-up on all such minor injuries. Precautions were taken to prevent contamination of any open cuts or wounds, and personnel so affected were transferred to clean work until such wounds healed.

7. Property

Property items were handled in accord with established procedures for transfer and regard for contamination levels. This phase of the work was handled in close collaboration with the Evaluation Committee, whose partial duty was to pass on disposal of all contaminated equipment and apparatus.

CONCLUSIONS

1. Monsanto Unit IV has been decontaminated as closely as possible, as shown by the final Health Survey, to within the level used as an upper limit for this project, and as defined to be the function of the Steering Committee.

2. All property, material, and scrap coming within the scope of this project have been disposed of in accordance with regulations for property transfer, contamination levels, usefulness, and salvage value. No material of any kind was sent to any public dumping ground.

3. It is unlikely that future dismantling work will present any problems from the contamination standpoint, providing the contractor follows procedures similar to those used by Monsanto.

4. Decontamination to levels lower than the one used for this project would have involved considerably more time, expense, and to have reached similar levels as used for Unit III would have been practically impossible to achieve by any method short of dismantling.

5. Experience on this project indicates that maximum limits set for air contamination could possibly be raised for similar projects or work. Close health supervision of course must be maintained.

TAB A

TAB A - REPORT OF THE COMMITTEE TO PLAN FOR THE DISPOSAL OF UNITS III AND IV

A committee was appointed to plan for appropriate disposal of Units III and IV whenever these activities may begin. The committee consisted of:

J. J. Burbage	- Assistant Laboratory Director
J. E. Bradley	- Section Chief, Decontamination and Survey
M. M. Haring (Chairman)	- Laboratory Director
J. J. Spicka	- Business Manager
R. A. Staniforth	- Division Director, Research and Development
N. Varley	- Deputy Area Manager
J. R. Wiesler	- Division Engineer

The committee met in the conference room of Mound Laboratory at 9:00 A.M., February 25, 1949.

Certain facts were first established.

1. Among these were the tolerances set for moving contaminated equipment, etc. Dr. Failla ruled a year or more ago that no piece of equipment may be declared surplus or otherwise sent into the channels of industry unless it shows a direct reading on an alpha meter of less than two divisions, i.e., six disintegrations per minute per square centimeter. Of course the wipe test must be zero. In addition we had set, last summer, a suitable tolerance for moving equipment from Units III and IV to Mound Laboratory. This is 100 disintegrations per minute per square centimeter, with a zero wipe test.

2. A discussion of the present status of Units III and IV confirmed the following. Most of Unit III is fairly "clean" and can be decontaminated

on surfaces fairly readily. However, extensive disturbance of floors, walls, or plumbing will undoubtedly stir up much "hot" dust which is presently in cracks, etc. Incidentally such disturbance would be very costly. The Quonset hut is quite "hot," on the interior, and so are one or two laboratories in the main building. Almost all of Unit IV is very "hot." Decontamination would be almost impossible. In any case the Atomic Energy Commission has ruled that it be dismantled completely.

3. There is a great deal of valuable material at both sites that can certainly be salvaged. There is also a great deal of material the cost of salvage of which would greatly outweigh the recoverable value. To accomplish the task of disposal as economically as possible, these and several other factors must be carefully balanced.

4. Whoever accomplishes the task of wrecking and/or restoration must be adequately protected for the job. In most cases this will mean special clothing, gloves, masks, and often ventilated hoods. He and his surroundings must be fully monitored during the whole task.

5. It is most important, from the standpoint of public and industrial relations, that neighbors and workmen, other than our own, do not have their suspicions aroused concerning the unusual hazards of the operations. This means that the special protection metioned in (4) must not be apparent to them.

6. Whoever does the wrecking and restoration must have an intimate knowledge of both sites so that hazards, both present and future, are minimized. We are the only ones who really know or should be fully acquainted with these facts.

7. In view of the foregoing facts, the committee was unanimous that our own staff must restore Unit III and wreck the interior of Unit IV. A subcontractor can then, in all probability, safely wreck the outside of Unit IV.

8. We are severely limited in our own forces to accomplish this work. However, we have presently at Units III and IV about 36 guards, most of whom cannot be absorbed into the Mound Laboratory staff. Many of these men have considerably "handy-man" talent and, under suitable tutelage from our Engineering Department, could do much of the work. Those selected would, of course, be reclassified as general mechanics, drivers, etc. This would extend their possible period of employment by Monsanto, but there is no escaping the necessity of additional personnel during the period of disposal. These guards, being cleared, would be very valuable in meeting this need. Last fall, when discussing personnel requirements, it was pointed out that at least 20 men would be required for the purpose.

9. We have very extensive storage facilities at Scioto Laboratory which would be ideal to care for valuable contaminated equipment during a few years of "cooling off." Such equipment could be "cocoonized," covered with a strippable plastic, or left "as is" depending on its nature and the degree of contamination.

10. There is adequate storage in the hidden back corners of Mound Laboratory to pile up contaminated material destined for destruction. None should be shipped to Oak Ridge. It is hoped that our contaminated burnable waste incinerator will be a reality by next Christmas. When this occurs, all such material can be permanently disposed of.

11. Unit IV is not to be touched, according to W. J. Williams, until it is certain the "T" Building will do what is expected of it. This does not appear to be possible before June, 1949. It is desirable to return Unit III to the Dayton School Board as soon as possible. Therefore, it is quite possible we should start on Unit III rather than Unit IV.

12. Spraying of interiors with a plastic to fasten down activity is an attractive possibility, if one can get at the activity. However, most of it is hidden and will dust out at each step. In addition, the cost would be extreme. An estimate of $11,000 to so treat the interior of Unit IV was made last summer. J. R. Wiesler says this figure is far too low. The committee considers spraying a useful additional precaution but no substitute for standard procedures.

In view of the foregoing, certain procedures applicable to both Units III and IV were set up.

1. All things not contaminated and immediately useful to us should be moved to Mound Laboratory. They will have to be put into one of Maxon's construction warehouses until they can be sorted, inventoried, and permanently stored. Presently we are overwhelmed in this matter, the best estimate being six months to clear up the situation as of the moment.

2. All telephones must be carefully surveyed. If "clean" they can be returned to the Telephone Company. If "hot," as the majority are, they will be decontaminated to zero wipe test and exchanged for "cold" telephones in low risk areas at Mound Laboratory wherever possible. In this fashion the number of instruments we will be forced to buy will be kept to a minimum.

3. A committee has been appointed whose duty it will be to pass on all contaminated apparatus or equipment presently at Units III and IV. It is most important that the amount of scrapped items be kept to a minimum. To this end, this committee will determine the following points:

a. Possibility of economical decontamination. Such items will be put in stores at Mound Laboratory or declared surplus property.

b. Possibility of using certain equipment in "hot" areas at Mound Laboratory with little further treatment.

c. Advisability of storing in warehouses at Scioto Laboratory to "cool off." The committee will also determine whether such items are to be "cocoonized," coated with a strippable plastic or left "as is."

d. Exactly what apparatus and equipment should go to the scrap pile at Mound Laboratory.

This evaluation committee is as follows:

J. J. Burbage (for Unit IV)	-	Assistant Laboratory Director
M. M. Haring (General Referee)	-	Laboratory Director
R. A. Miller (or J. E. Bradley)	-	Section Chief, Health Instruments
R. D. Shiffer (or F. L. Halbach)	-	Plant Engineer
J. J. Spicka (Chairman)	-	Business Manager
R. A. Staniforth (for Unit III)	-	Division Director, Research and Development

4. As the evaluation committee proceeds through the various rooms and buildings, our engineering, health, and business personnel will proceed to act on its findings.

5. A general steering committee will be established to care for the whole job of disposal. Its primary function (and temporarily sole duty) will be to coordinate all phases of the disposal program and see that things are carried through. The committee will submit reports at biweekly intervals to management. The committee is as follows:

L. E. Byriel	- Area Office Supervisor
F. L. Halbach (Chairman)(or R. D. Shiffer)	- Chief Design Engineer
J. E. Bradley (or R. A. Miller)	- Section Chief, Survey and Decontamination

6. Both steering and evaluation committes should avail themselves of the services and advice of W. D. Woods, Legal Advisor to the Director, whenever any question pertaining to the contract or other legal matter arises. If further help from any of the divisions is indicated, they should approach the Division Director concerned.

The tentative specific programs for Units III and IV are as follows:

UNIT III

1. Dispose of all cold mechanical, plumbing, heating, and lighting equipment as the forthcoming agreement with the Dayton School Board may indicate.

2. Sell the tropical huts, "as is where is."

3. Remove and scrap all duct work, except that used to heat the third floor.

4. Remove and scrap all benches, hoods, and temporary partitions except those on the third floor.

5. Remove air conditioning units from the attic.

6. Vacuum clean and spray the attic.

7. Remove all contaminated mechanical, electrical, and plumbing equipment for disposal as recommended by the evaluation committee.

8. Tear out the whole interior of the Quonset hut.

9. Survey the interior of the shell of the Quonset hut. If "cold" it can be sold "as is where is" or disposed of as agreed on with the School Board. If "hot" it should be sprayed with plastic and left.

10. Clean cut, i.e., sweep, all rooms.

11. Survey all rooms, decontaminate where indicated, and resurvey to establish the fact of decontamination.

12. Fence and guard houses should be left.

13. Return property to the School Board with the agreement that no major changes in walls, floors, or sewer lines be made within five years without seeking our aid in survey, etc.

14. Any of the items above may be modified if survey indicates they are necessary or unnecessary.

UNIT IV

1. Dispose of all cold mechanical, plumbing, heating, and lighting equipment by warehousing at Mound Laboratory or declaring surplus property.

2. Remove all contaminated mechanical, electrical, and plumbing equipment for disposal as recommended by the evaluation committee.

3. Spray interior as indicated by survey.

4. Tear out all rooms, partitions, etc., built in any hot operating area. Tear out ceiling, wall, and floor linings in the same areas. This will be a particularly hazardous operation. Spraying may be resorted to

where indicated, but is not expected to be of much use owing to the spongy porous nature of much of the material to be removed. Ventilated hoods and special clothing may have to be worn throughout.

5. All hot wreckage material should be sorted into burnable and non-burnable categories and hauled to the scrap piles at Mound Laboratory. The trucks used for this service will probably have to be considered expendable since their decontamination may prove to be impossible.

6. Sweep out all loose dirt.

7. Spray interior of shell wherever indicated by survey.

8. Hand over the shell of the building and surrounding small structures to Maxon for razing as arranged by the Atomic Energy Commission.

9. Material from razing should be put on the scrap piles at Mound Laboratory.

TAB B

TAB B - FACTORS AFFECTING THE PROBLEM

History of Unit IV

"It was speedily realized that Unit III would not suffice for production, so a further search was made for space. ...

In February, 1944 negotiations acquired the Runnymeade Playhouse in Oakwood, a suburb of Dayton, This location was called unit IV. Since this building is located in one of the finest residential sections of the city, some difficulty was encountered in leasing negotiations by Monsanto. However, condemnation proceedings were instituted and the property leased by the Government. This location was chosen primarily because it was the only building in Dayton that could be occupied immediately. It afforded sufficient floor space, head room, necessary services and, also, was approved by the security officials. It is owned by the Talbott Realty Company whose holdings are, primarily, the estate of the Talbott family. ... In addition to the main building there is a one and one half story garage, the main floor of which was converted into a carpenter shop and locker rooms.

Work was immediately started to erect three guard houses and a fence. Alterations to the main building were not extensive, but the interior presented many problems in constructing process facilities and laboratories. Care was exercised in making as few changes as possible in the building and the existing services to alleviate the problem of restoration upon vacating this site. ... Careful consideration was given in order to minimize annoyances such as noise, smoke, and dirt so as not to incur undue criticism from the residential area. ... Operations began in May, 1944. ...

From the desk of
LERROY V. JONES

In May, 1945 it was decided that the Bismuth Process was superior to the Lead Dioxide Process for the manufacture of polonium. Consequently, numerous changes were made in the production facilities located on the main floor of Unit IV. The equipment used in the Lead Dioxide Process was dismantled and shipped to Oak Ridge. In its place small laboratories designed for the Bismuth Process were constructed.

In 1945 a fireproof storage vault was erected on the grounds at Unit IV for storage of classified materials."

See Figure 1, Plot Plan, Unit IV, July, 1947.

See Figure 2, Unit IV, Main Guard House Entrance.

See Figure 3, Unit IV, N.W. View of Main Building.

See Figure 4, Unit IV, Rear View of Main Building.

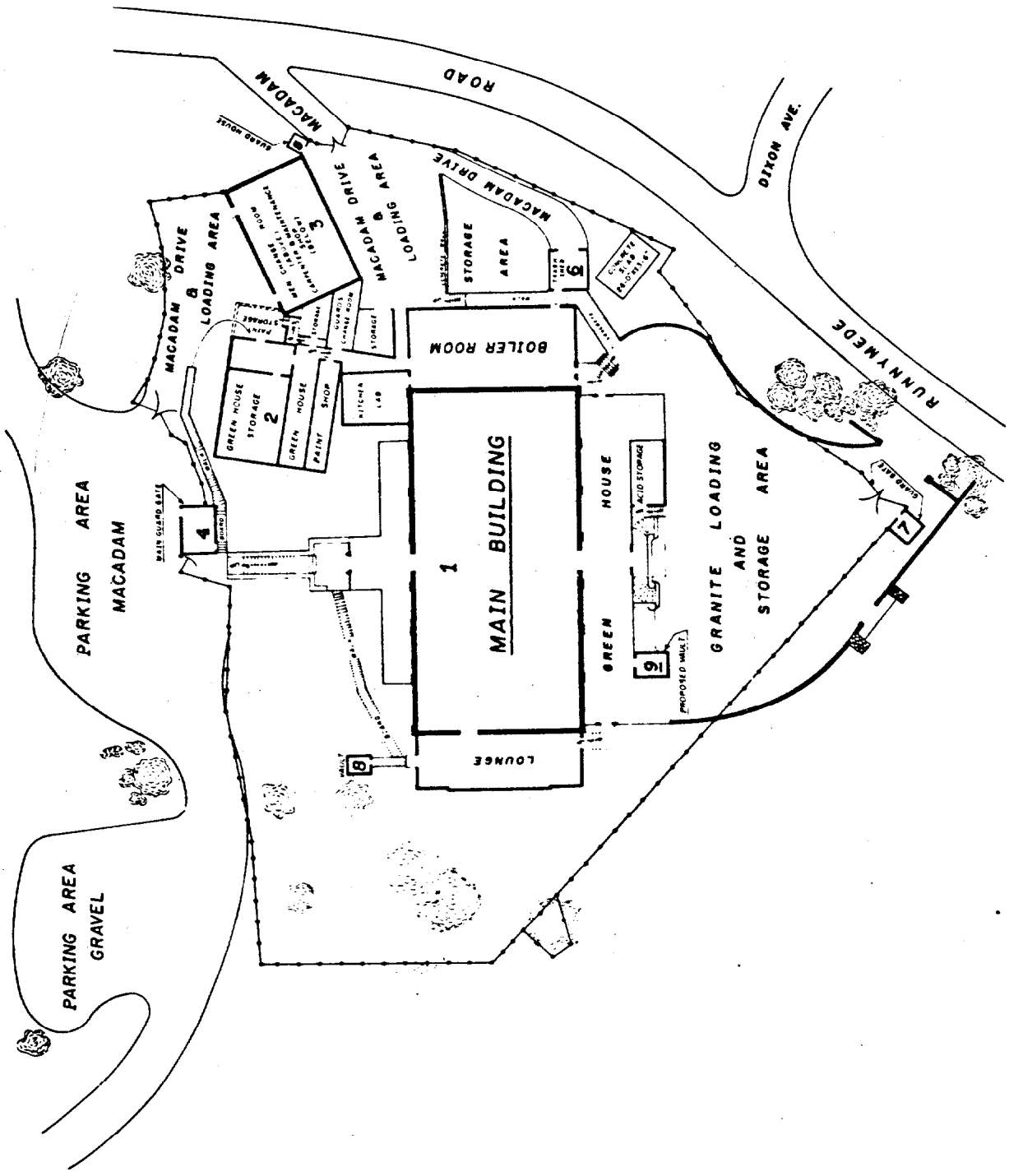
See Figure 5, Unit IV, S.W. View of Main Building.

See Figure 6, Unit IV, S.E. View of Main Building, Change House and Shop Building.

See Figure 7, Unit IV, Change House and Shop Building.

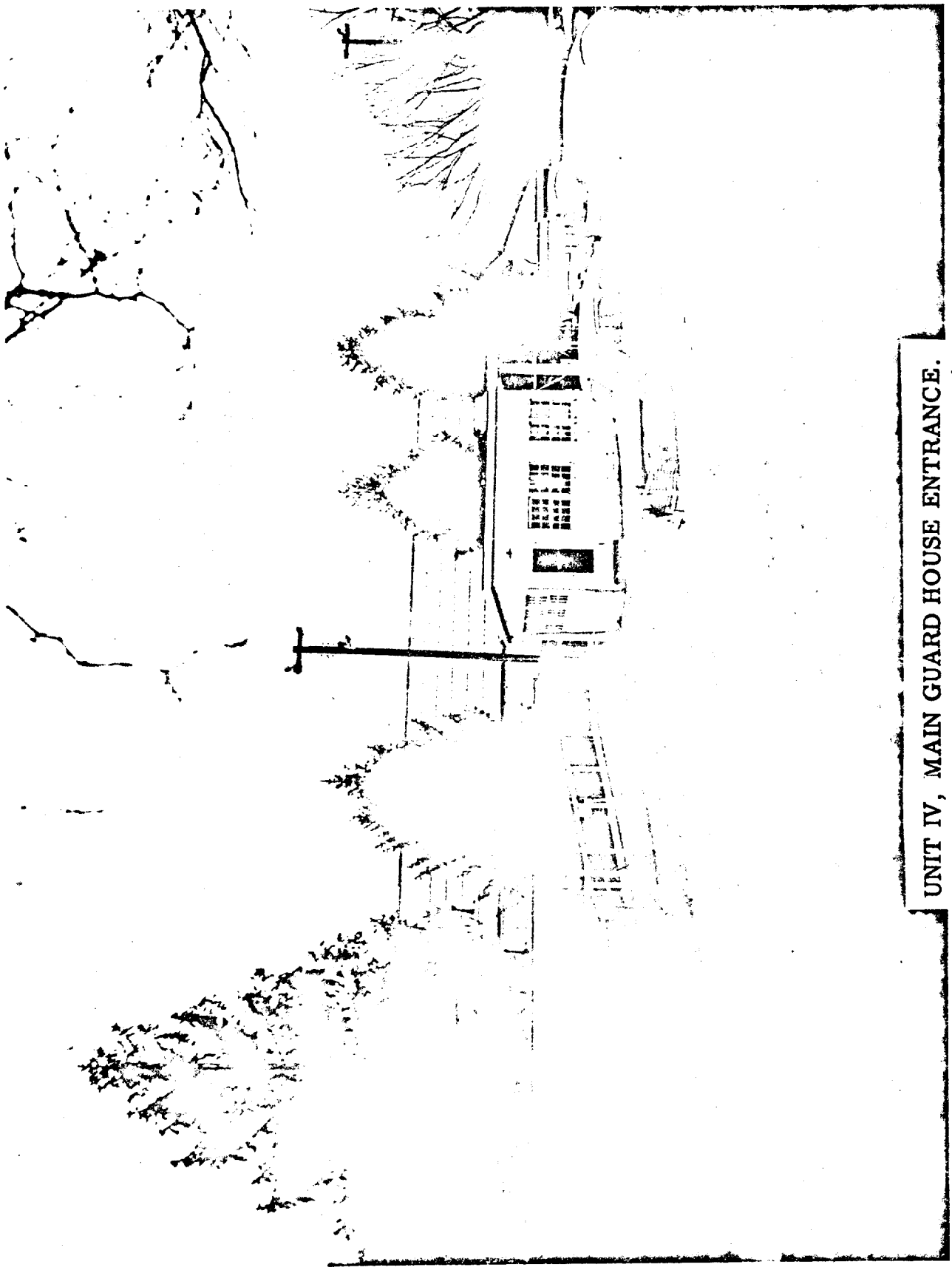
"Every laboratory working with radioactivity has the problem of protecting the workers against the health hazards arising from various radiations. The Dayton Project was no exception. ... Despite all efforts, contamination persisted at a higher level than desired."

Note: It is this contamination, in this case entirely from polonium, which makes this disposal of Unit IV a complex, difficult, potentially hazardous and expensive problem.



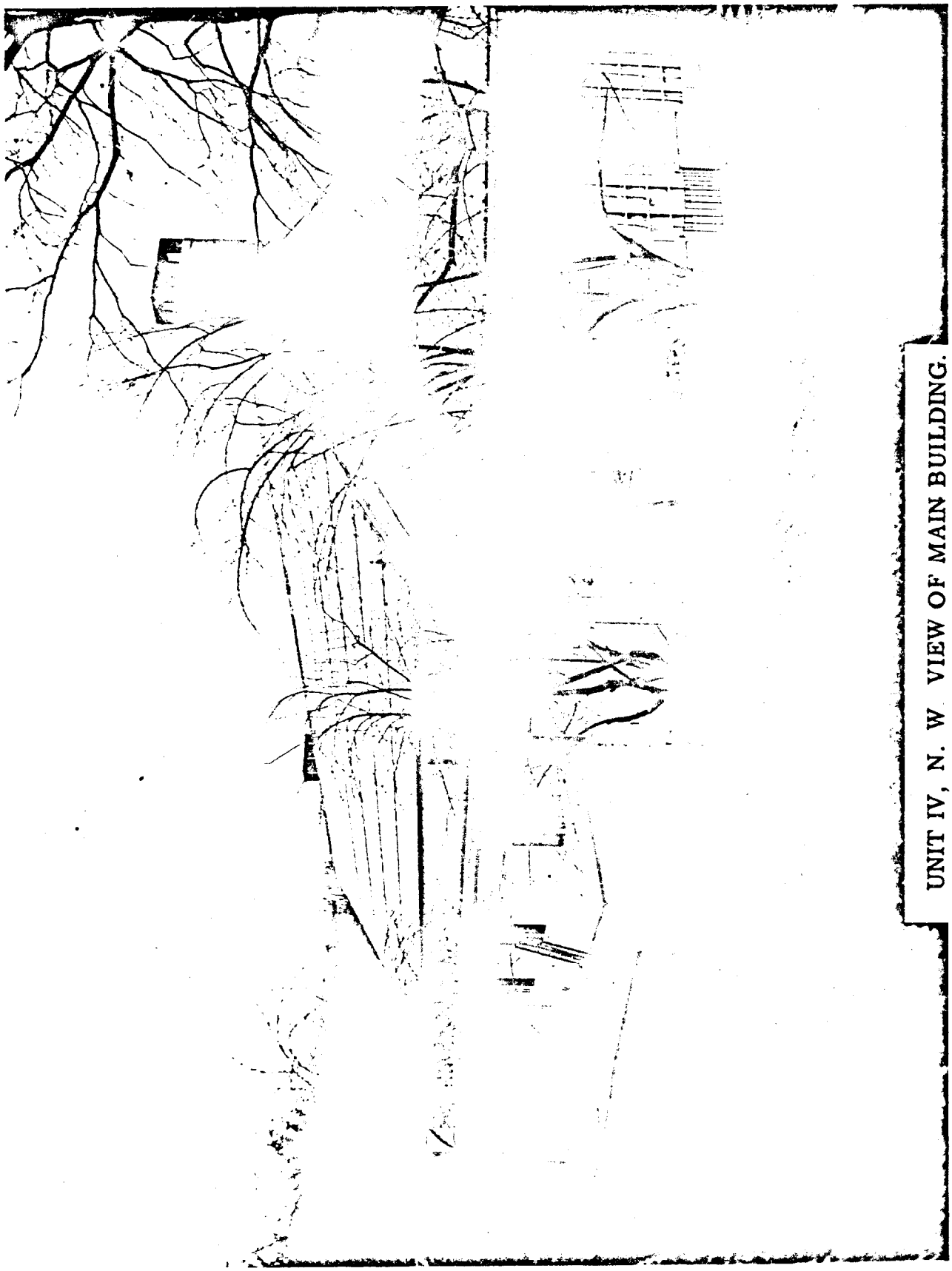
PLOT PLAN, UNIT IV. JULY, 1947

500061



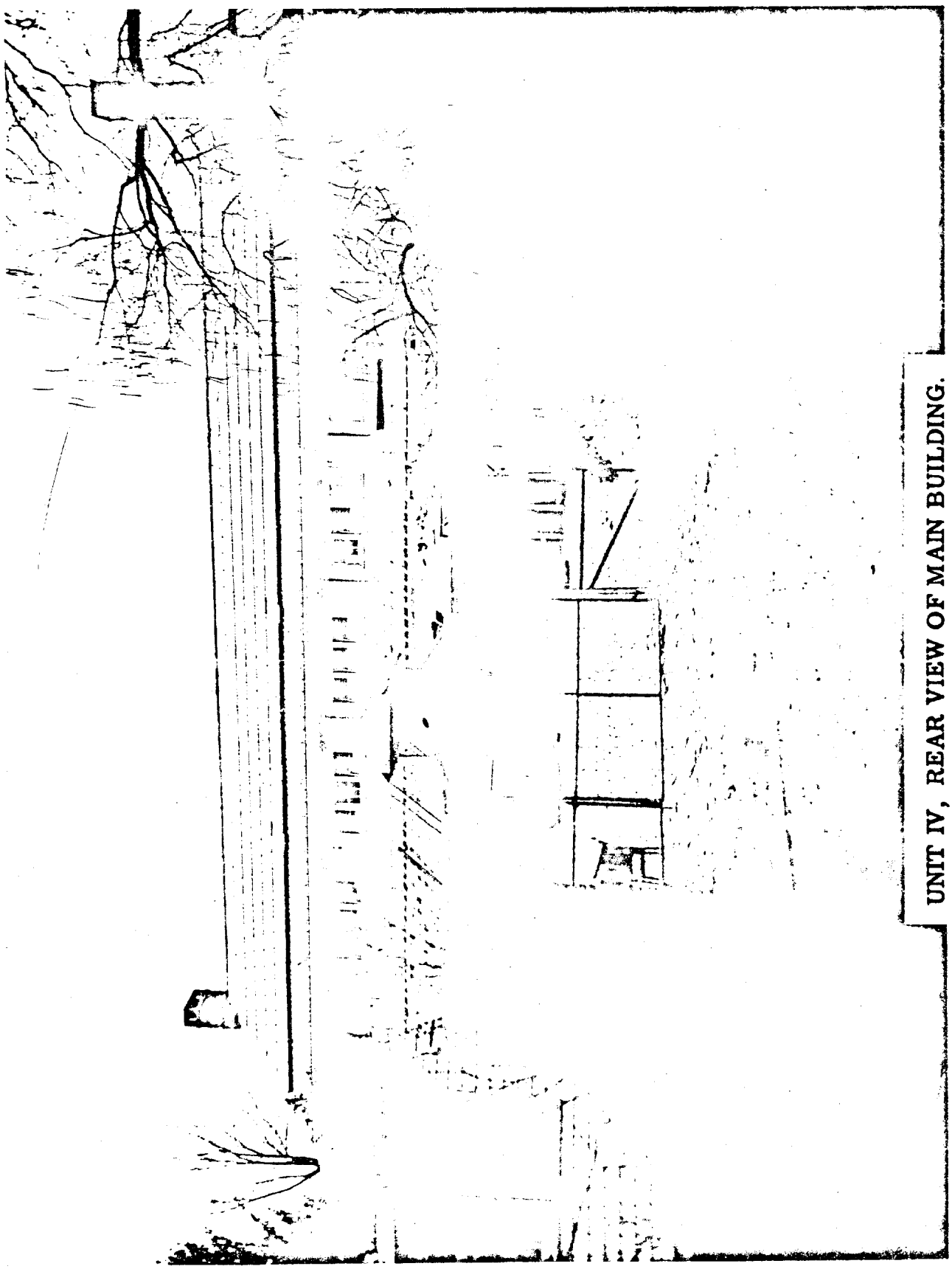
UNIT IV, MAIN GUARD HOUSE ENTRANCE.

490828



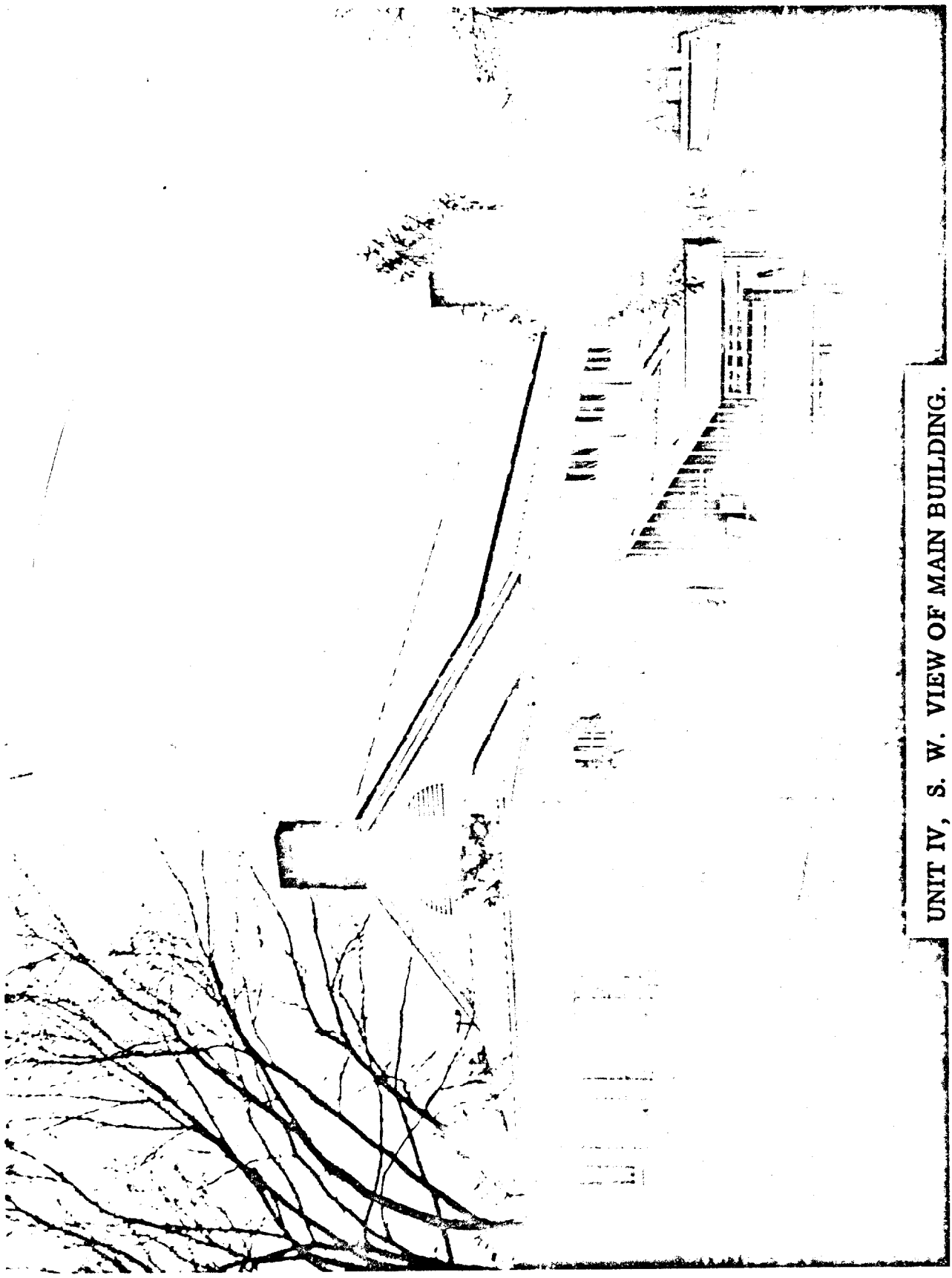
UNIT IV, N. W VIEW OF MAIN BUILDING.

490825



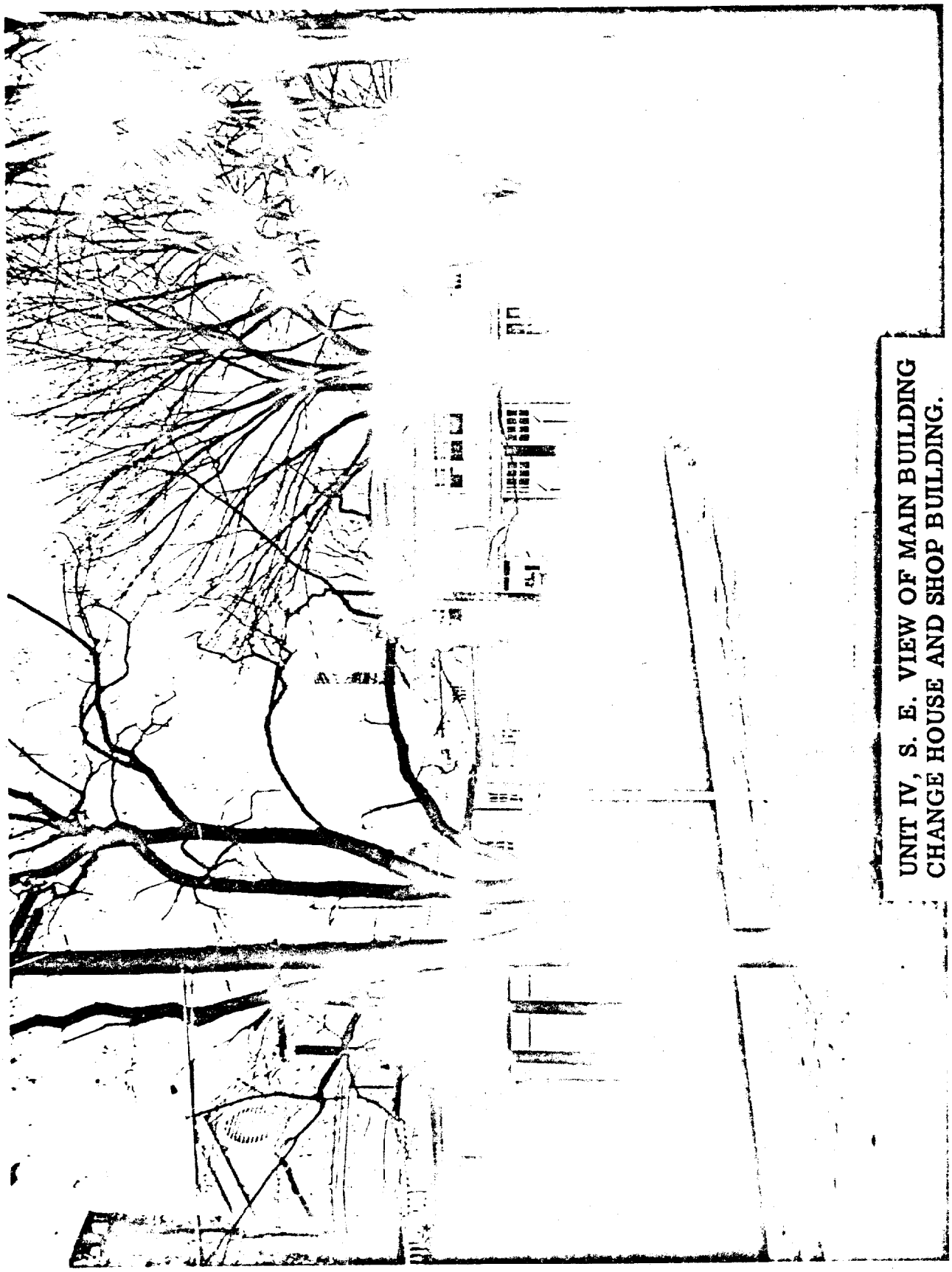
UNIT IV, REAR VIEW OF MAIN BUILDING.

490829



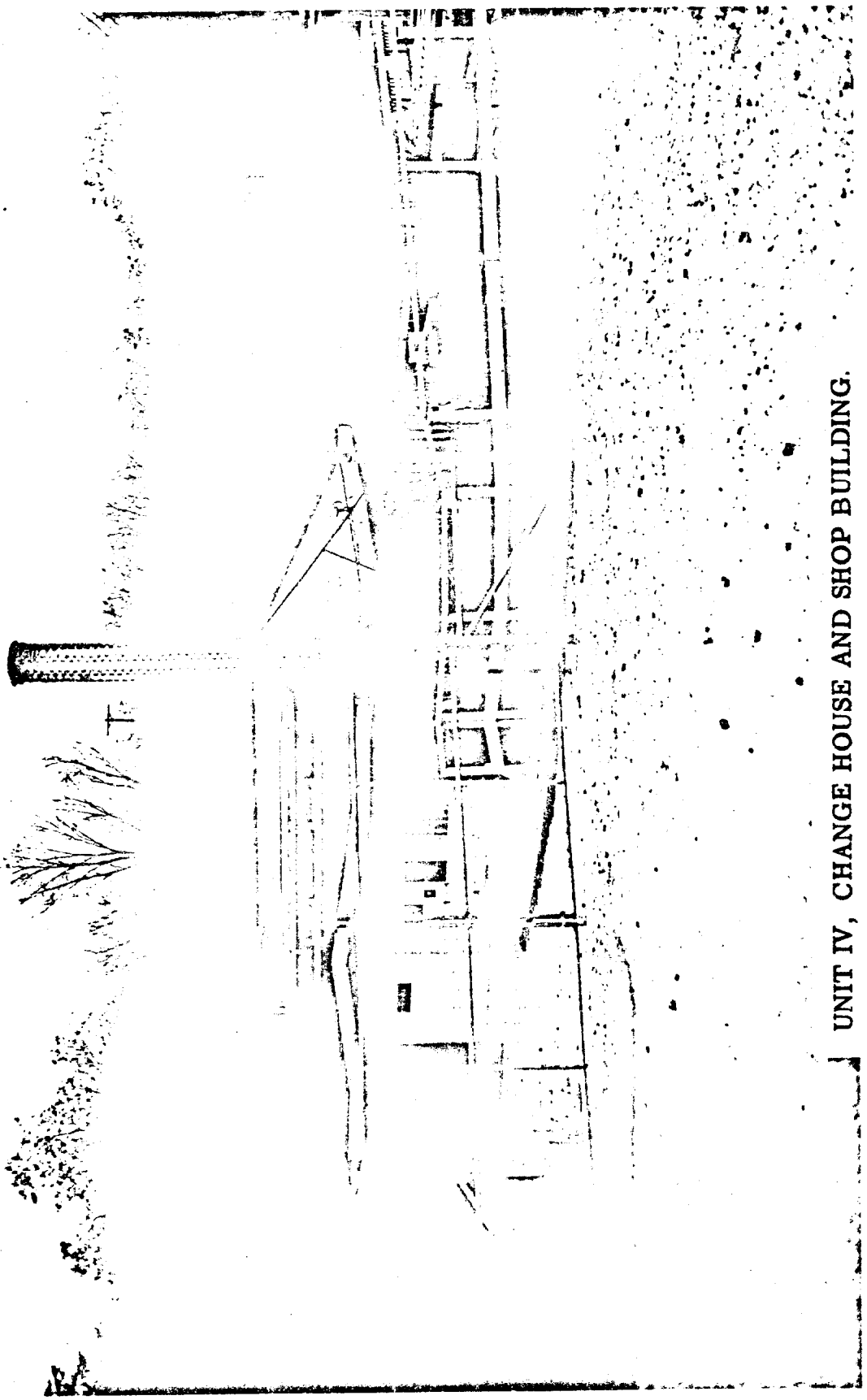
UNIT IV, S. W. VIEW OF MAIN BUILDING.

490824



UNIT IV, S. E. VIEW OF MAIN BUILDING
CHANGE HOUSE AND SHOP BUILDING.

490827



UNIT IV, CHANGE HOUSE AND SHOP BUILDING.

490823

TAB C

TAB C - RETENTION OF RADIOACTIVE PROPERTY AND SALVAGE MATERIAL

UNITED STATES
ATOMIC ENERGY COMMISSION

EIDMW-3

Oak Ridge, Tennessee
February 10, 1947

United States Atomic Energy Commission
Dayton Area
Dayton, Ohio

Attention: Colonel R. J. Kasper, Area Engineer

Subject: RETENTION OF RADIOACTIVE PROPERTY AND SALVAGE MATERIAL

1. It is essential that action be taken to prevent radioactive material from entering commercial channels. You will establish necessary procedures to insure that it is impossible for materials of this type to lose their identity or to enter commercial channels through sales or transfer of surplus property, salvage, and scrap.

2. Material which gives greater than two times background on the instrument Victoreen 263, or greater than two divisions on the most sensitive scale of the Zueto will be considered sufficiently contaminated to justify withholding them from commercial channels until policies and procedures governing the disposition can be formulated.

3. In the event the instruments referred to in Paragraph 2 are not available, they may be obtained by submission of AEC Form 500 to the Instrument Production Section, Research Division, in accordance with District Circular Letter (Research Control 47-1) dated 27 August 1946.

4. The present procedures now governing the transfer of property and material between installations of the Atomic Energy Commission is not affected by this directive.

ATOMIC ENERGY COMMISSION

/s/ P. F. Kromer, Jr.
Colonel Corps of Engineers
Deputy Manager, Field Operations

TAB D

- Runneymede Playhouse

- old School house

Limits - 5000 dec/min 4 meter

- no wipe

TAB D - LETTER TO CHIEF, APPLIED BIOPHYSICS BRANCH, DIV. OF BIOL. AND MED.

June 30, 1949

Dr. Lauriston S. Taylor, Chief
Applied Biophysics Branch, Div. of Biol. & Med.
Joe Deal
Applied Biophysics Branch, Div. of Biol. & Med.

VISIT TO DAYTON

REFER TO SYMBOL: BM:LJD

On Friday, June 24, 1949, Dr. Stoeckle and I spent the day at the Dayton Area. Since they have moved to Mound Laboratory, they now have the problem of disposing of the old plant which consisted of two sites in the city of Dayton, one of them known as "Runneymeade Playhouse" and the other, the old School House. The disposal of Runneymeade Playhouse will not pose the same difficulties since the Monsanto Health Division will be in complete charge of the operation, which consists of tearing the building down and storing it. I do not mean to imply that this will be an easy job. However, it will be under control.

The main problem at present is the disposal of the School House. Since the building does not belong to the Government but to the Dayton city school system and the School Board is looking forward to having it returned in the future, this poses a rather knotty problem. The Manager at Dayton has decided that he will make as thorough a clean-up as possible of the building without going into major construction or destruction with the idea of having a thorough survey at the completion of the clean-up. His staff will prepare a staff paper based on their findings. Mr. Dunbar felt that he had two possible choices. This was one and the other was not to do anything but write a staff paper making recommendations.

They have arbitrarily set as the limit of decontamination 5,000 disintegrations per minute as read on a Victoreen alpha survey meter. This corresponds, roughly, to 50 disintegrations per minute per square centimeter of area. In addition, a piece of filter paper wiped over the area will not show any contamination. Because of the inaccessibility of a number of places in the school building and because of the fact that pipes and electrical conduits, etc., are contaminated and can not be surveyed, they are faced with a number of questions. Some of these are:

1. Will they be able to decontaminate and renovate the building, then return it to the School Board on a calculated risk basis.

2. What are the implications if they should return the building on a calculated risk plan.

3. Is their level of decontamination satisfactory.

4. Should they lease the building for several more years and allow the activity to decay.

5. Should they buy the building and tear it down.

We discussed a number of these possibilities without really trying to come to any general agreement, since anything we would have decided would have been premature. There was some talk of turning the building over to the School Board with the provision that any major repair work would have to be supervised by the Monsanto health people. This did not seem very practical to me since once you lose control of the building you have no way of actually being certain that they don't do some work by ignorance on the part of the man doing the work or a slip-up in procedures or maybe the people would just not be willing to bother to wait on somebody to come from Miamisburg to make a survey.

One of the major considerations that was facing the health physics people at the time we were there was that they will not be able to decontaminate the roof. It was my opinion that since they had already made the decision to do the best clean-up they could, that this would be a problem for them to decide themselves rather than waiting to get an indication from some higher authority as to whether their 5,000 level is adequate. However, it would be of great assistance if they could get some indication on the general acceptance or rejection of their decontamination level. This is a rather arbitrary figure and was calculated independently by two groups there. The assumptions behind this figure are: (1) that they would accept in their new plant anything that contained as many as 10,000 disintegrations per minute provided that none of the contamination would wipe off; and (2) 5,000 disintegrations per minute is roughly either 10 or 100 times the level set for returning stuff to commercial channels. This latter figure is one I am not familiar with but I do know that before the AEC took over from the Manhattan District, there were some sad experiences due to releasing contaminated materials through the sale of surplus property. Because of this, an extremely low figure was set for the release of scrap on the open market. I am not sure about the history of this figure nor am I sure of what it is. However, it is a figure that can be dug out of the files.

In general, the situation does not seem impossible nor critical. The staff at Dayton, with the help of Mr. Hayden from Dr. Holland's office, seem to be feeling their way along and meeting each situation as it arises. I would recommend that we make an effort to consider the decontamination figure and then wait for the staff study that Mr. Dunbar will prepare.

TAB E

TAB E - DISPOSAL OF UNIT IV

The Engineer-in-charge was obtained from the Monsanto design staff on the Sciotò Laboratory Project, and reported for duty on May 2, 1949, which date marks the beginning of the disposal program at both Units III and IV.

Work orders were assigned to the individual units and for preparation of a storage site at Mound Laboratory.

Personnel were obtained on a temporary transfer basis due to a reduction in force in the Security and Business Divisions. Other personnel were obtained as required on temporary loan from Engineering, Business, Operations, and Health Divisions.

The Health Supervisor, on temporary loan from the Atomic Energy Commission, Oak Ridge, Tennessee, reported for duty on May 23, 1949.

Work was first started in connection with preparation of a storage site for contaminated wastes at Mound Laboratory.

Prior to starting any actual work at Unit IV a preliminary health survey was made to measure spread of contamination from earlier work under direction of the Evaluation Committee. During this work it was found that contamination had been spread over pretty much of the entire Unit IV area. It was necessary to close the auditorium to presonnel for several weeks after this occurred. This survey still showed excessive contamination of walls, offices, locker rooms, and main guard house; in many cases exceeding 200,000 d./min./100 cm.^{2} Consequently, decontamination work in these areas had to be carried out prior to tackling the main job of

disposal. Floors and walls were cleaned, painted where necessary, and paper laid on inside floors. A locker room was set up, and rooms were provided for on-the-spot counting of air samples, and for supervisory and health personnel.

Change house and health procedures were established similar to those used at Unit III in connection with smoking, eating, clothing change, showers, and washing of hands.

The following maximum permissible limits for air levels and necessary protection required for same were put into effect.

0- 3,000 d./min./m.^{3}	-	no protection required
3,000-25,000 d./min./m.^{3}	-	respirators required
25,000-50,000 d./min./m.^{3}	-	assault masks required
Over-50,000 d./min./m.^{3}	-	work ceases in such areas until air levels fall to within workable limits

The same maximum limit of 12 c./min./50 ml. for urine samples as is used at Mound Laboratory, was used on this project to determine work status of individual personnel.

Warehouses used during construction of Mound Laboratory were turned over for our use for:

1. Temporary storage of clean equipment and materials.
2. Temporary storage of contaminated equipment and materials.

Definition as given in TAB C was used to differentiate between clean and contaminated equipment. Items contaminated in excess of 5,000 d./min./100 cm.^{2} were decontaminated and/or packaged in a manner compatible with type, size, and shape prior to storage.

The first part of the disposal program consisted mainly of clean-up, decontamination, and disposal of materials, equipment and scrap that had been accumulated during earlier work. Scrap materials were separated into combustible and non-conbustible categories, and stored separately at the contaminated storage site so that combustible material could later be used in incinerator development program, or burned, if this unit has been meanwhile perfected and installed. Extreme care had to be taken in handling these materials, as contamination was mainly dust borne and easily stirred up. All piles of scrap, hoods, entire laboratories including floors and walls were spray painted to fix as much of the contamination as possible. (At this early date, wet methods of fixing dusts had not been thoroughly tested.)

The Engineer-in-charge left Monsanto in June. The Assistant Engineer took over project supervision, and additional personnel obtained from the Operations Division to provide supervision at both Units III and IV.

No definite levels had ever been fixed for the final work at Unit IV. Due to the fact that Unit IV was to be completely wrecked, and all material from same to be sent to Mound Laboratory, it was felt that levels higher than those set for the work at Unit III could be used. At a meeting of the Planning Committee on July 23rd, called to discuss this and other problems that had arisen up to this date, it was agreed that levels higher than those for Unit III were definitely in order, and while no definite levels were fixed, it was further agreed that actual limits should be determined by field conditions, and the judgment and experience

of the Steering Committee, Engineer-in-charge and Health Supervisor, with approval given to an upper level of 50,000 d./min./100 cm.^{2} direct reading and zero wipe for a working basis. Consequently, these conditions actually served as the basis for the work at Unit IV.

The personnel on the job were mostly reclassified as General Mechanics (later Maintenance Mechanics, 2nd Class) so that any type of job on the project could be assigned to any man, making necessary allowance for individual's physical condition and capabilities.

The initial clean-up and disposal work was completed early in August. Due to vacations, illness, etc., personnel was cut to such a few men that work at Unit IV was stopped during most of August and remaining men transferred to Unit III, then nearing completion.

During this period, the Health Department made an extensive survey of the entire unit to serve as a starting basis for the active decontamination and disposal program. Strangely the preliminary roof insulation survey indicated levels low enough to warrant leaving it in place. It had always been thought that this insulation would be highly contaminated, and entail considerable time and work to remove.

Due to success to date with decontamination of concrete and maintenance of low air levels during dismantling work by use of wet methods of laying dusts, the request was made that some field experimental work on these methods be carried out. This work was not to conflict, however, with the main job of disposal. All this work was conducted at Unit IV and a separate evaluation report issued on the results of these tests. Wet methods continued to be used extensively

during dismantling operations, and use of water is probably the chief single factor which made it possible to maintain a continuing work schedule with a minimum of work stoppage.

Similarly as at Unit III, practically every type of decontamination procedure was used at one time or another. However at Unit IV, due to its ultimate disposal, if there was any question as to method the particular object in question was removed rather than decontaminated. In other words it was less time consuming to remove contaminated material than to attempt decontamination. Painting was not recognized as a means of decontamination for this work.

The Health Supervisor left the project at the end of September. Balance of work was carried out under Monsanto Health supervision. Final surveys are included as TAB F in this report.

Actual dismantling work was accelerated in September, due to advanced status of work at Unit III. Same procedures and methods as used there were carried over to work at Unit IV. The entire auditorium floor had to be removed down to the concrete sub-floor due to spotty though extensive contamination all the way through. The concrete sub-floor even required one complete acid wash, and additional spot acid washes. A final survey of the ceiling insulation showed that the levels (with two exceptions of 60,000) were less than 50,000 d./min./100 cm.^{2} direct and N.D. wipe test. Samples were sectioned, and tests showed very little contamination or any evidence of dusting. Accordingly, ceiling insulation was left in place. The east macadam drive and a ten-foot wide area of macadam and paving block at the south loading dock were removed entirely.

Celotex side walls were well below levels used for the project and were left in place. Roof areas were below levels for job with one exception, which item was removed. Concrete floors in the south greenhouse and storage areas were grossly contaminated and, as these areas were pretty well painted over, had to be removed entirely, since acid washes had little effect on painted concrete.

See Figures 1 and 2, Unit IV, Main Building Interior During Dismantling Operations. (Work 90 per cent complete.)

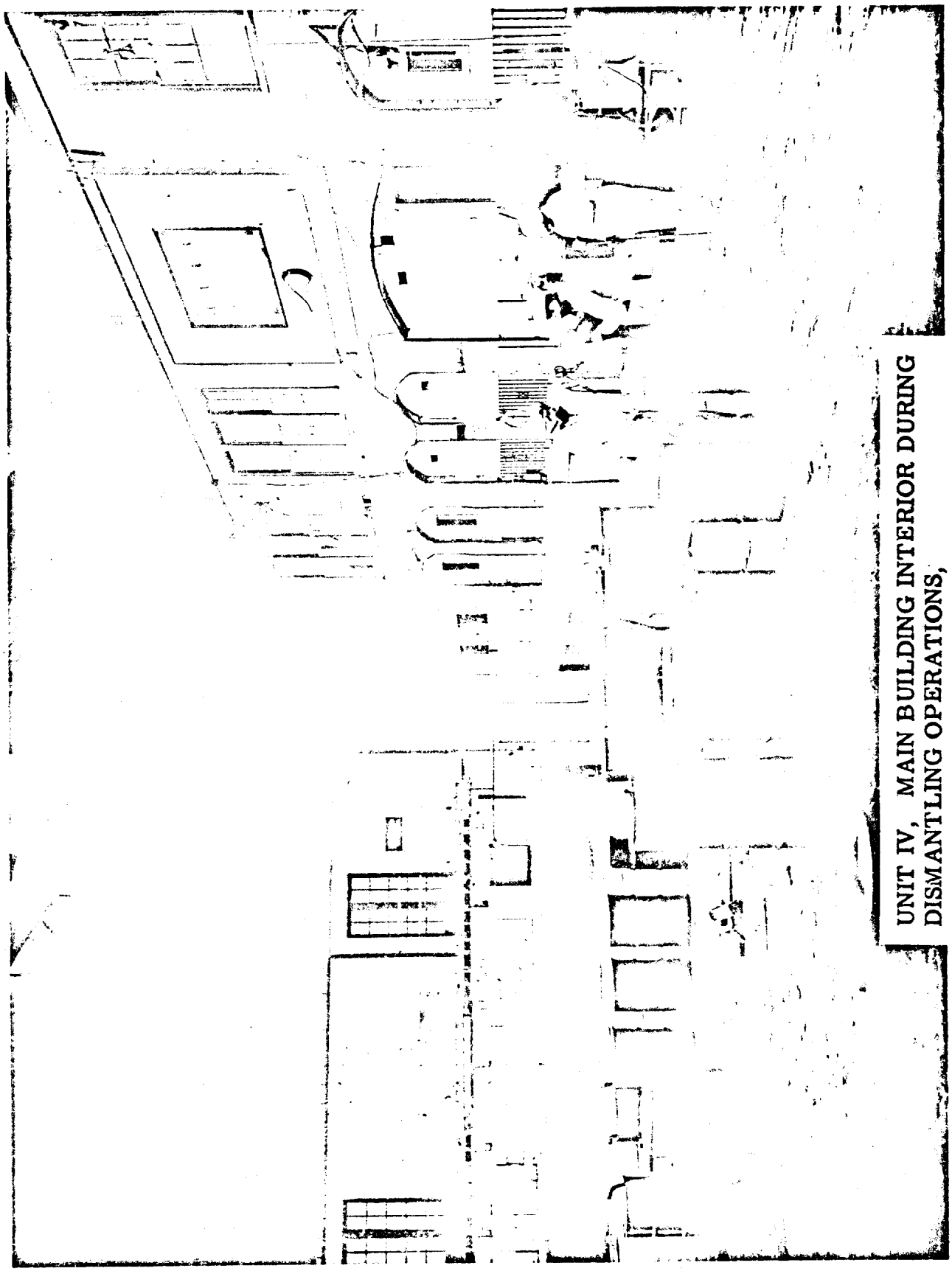
See Figure 3, Unit IV, Main Building Dock Area During Dismantling Operations.

The following amounts of material were transferred from Unit IV to Mound Laboratory:

160 loads - All types of contaminated scrap

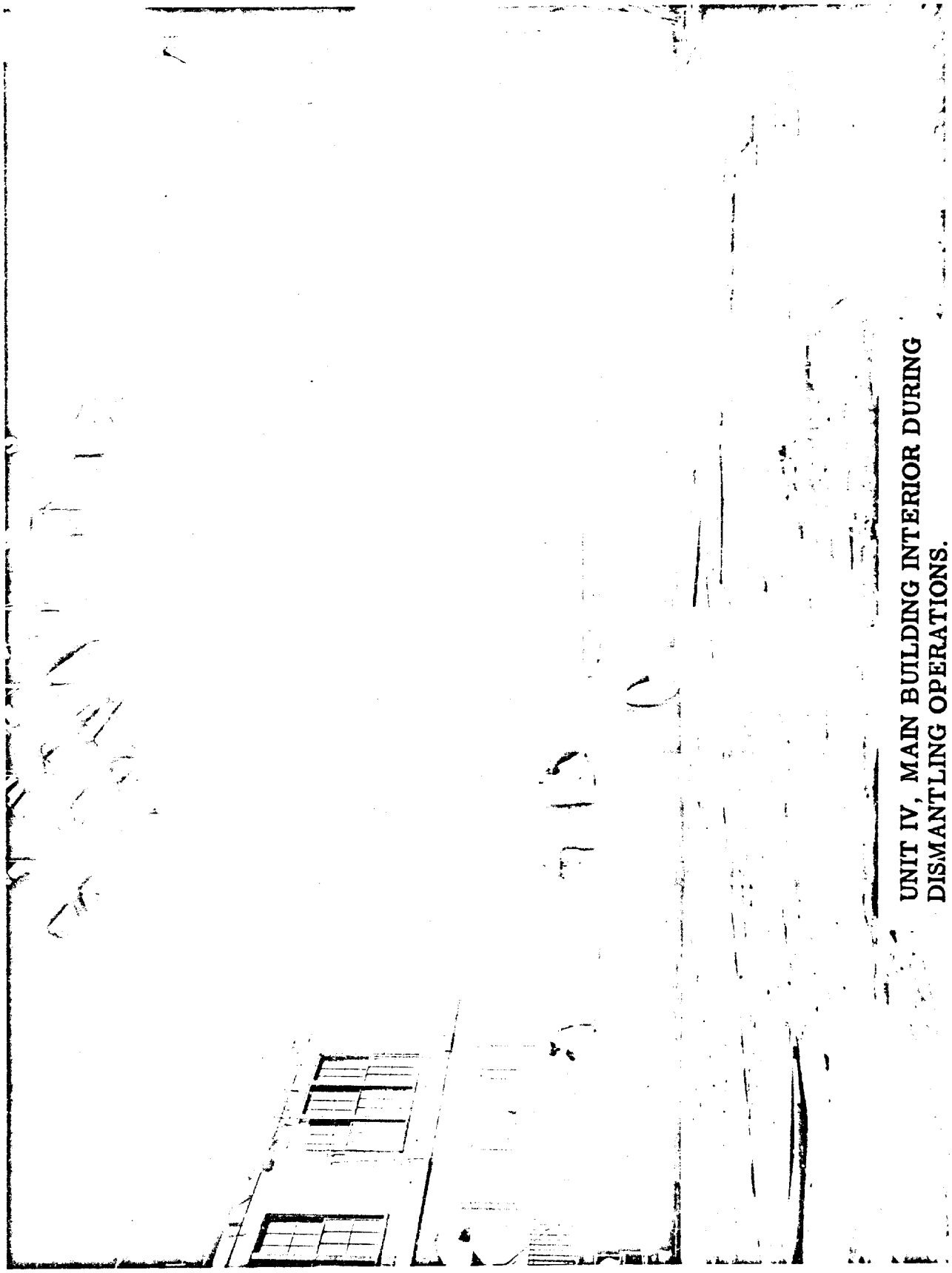
40 loads - Property items and usable materials

The final Health Surveys, see TAB F, were compiled, and disposal work under Steering Committee supervision completed on February 3, 1950.



UNIT IV, MAIN BUILDING INTERIOR DURING DISMANTLING OPERATIONS,

490830



UNIT IV, MAIN BUILDING INTERIOR DURING DISMANTLING OPERATIONS.

490822

UNIT IV, MAIN BUILDING DOCK AREA DURING DISMANTLING OPERATIONS.

490826

Final Dismantling of Unit IV

Since it was deemed advisable to demolish and remove from the site all existing structures, the Atomic Energy Commission arranged to purchase from the Talbott Realty Company the buildings on this property owned by the Talbott Estate. Accordingly, all buildings, as property of the Government, were to be razed.

Details of the demolition and removal of Government-owned facilities are contained in a Directive dated February 13, which also makes reference to the purchase of the buildings owned by the Talbott Realty Company, copy of which follows.

Contract AT-(33-1)-81 was awarded to the R. G. Mattern Company for demolition and removal work. Active work was started on February 10 and completion was estimated to be May 15.

Figures 4 through 19 indicate the progress made during this phase of the work.

Following also are copies of letters dated February 13 and February 14 to the R. G. Mattern Company from the Atomic Energy Commission which are of interest in connection with this work.

Conclusion

In view of the record at Unit IV we may conclude that other similarly contaminated buildings, drives, and grounds, after careful and thorough decontamination by operating Contractor personnel to levels approximating those used on this project, may be successfully razed or removed by outside wrecking contractors with a minimum of operating contractor advisory personnel and little likelihood of the small amount of the residual contamination causing any work stoppage, subsequent contamination of wrecking equipment or tools, or wrecking personnel becoming "hot," as measured in the usual manner.

UNITED STATES
ATOMIC ENERGY COMMISSION

In reply refer to:
E:RWD

P. O. Box 66
Miamisburg, Ohio
March 14, 1950

Mr. R. G. Mattern
2310 North Western Avenue
Dayton
Ohio

Dear Mr. Mattern:

Reference is made to Contract No. AT-(33-1)-81 and to our letter of instruction, dated February 14, 1950.

Recent surveys have disclosed that it is undesirable from a contamination standpoint to let building No. 3 remain for future use. It is requested, therefore, that you take the necessary action to completely dismantle building No. 3 and transport the resulting residue of materials to Mound Laboratory in accordance with procedures for the demolition of the balance of Unit 4.

Very truly yours,

/s/ R. W. DeLozier
Project Engineer

DeLozier/clh

CC: J. J. Spicka, Monsanto
M. W. Hicks, Monsanto
N. S. Talbott

Mr. R. G. Mattern
February 14, 1950

utilized during the demolition operations looking to the possibility of this building remaining in good useable condition at the completion of your contract obligations.

Very truly yours,

/s/ R. W. DeLozier
Project Engineer

DeLozier/mw

cc: Mr. J. J. Spicka
Mr. M. W. Hicks
Mr. N. S. Talbott

UNITED STATES
ATOMIC ENERGY COMMISSION

In reply refer to:
EC:RWD

Post Office Box 66
Miamisburg, Ohio
February 13, 1950

Dr. M. M. Haring
Laboratory Director
Monsanto Chemical Company
Mound Laboratory
Miamisburg, Ohio

Subject: DIRECTIVE DAY-11

Dear Dr. Haring:

Transmitted herewith, as a matter of information to you and for your record, are three copies of Directive No. DAY-11, providing authority and necessary funds for demolition of Unit No. IV.

Very truly yours,

/s/ E. A. Walker
Assistant Area Manager

Encl.;
3 cys DAY-11

DeLozier/mw

Dir. Consec. No. 913
Dir. No. Day-11

UNITED STATES
ATOMIC ENERGY COMMISSION

PEE:NV

Oak Ridge, Tennessee
February 13, 1950

Manager, Dayton Area
U. S. Atomic Energy Commission
Miamisburg, Ohio

Subject: DIRECTIVE FOR THE DEMOLITION AND REMOVAL OF COMMISSION-OWNED FACILITIES FROM THE TALBOTT CORPORATION PROPERTY, DAYTON, OHIO

Reference is made to memorandum from the Assistant Area Manager, Dayton Area, to the Director of Production and Engineering, Oak Ridge, dated January 26, 1950, subject, "Request for Directive Action."

Further reference is made to Commission obligations under Court Order (U.S. District Court, Southern District of Ohio, Civil No. 319). Conditions of the judgment rendered in this action stipulated, in part, that the Commission pay the defendant (The Talbott Realty Company) the sum of $138,750 and, in addition, shall "cause to be demolished and removed, all of said improvements, including the foundations to a depth of seven feet, render all the sewer lines fit for public use, cap utility lines, fill all holes and grade said land, etc."

Since the Monsanto Chemical Company has completed all preliminary work - consisting of the dismantling and removal of laboratory equipment and contaminated materials previously scheduled for removal prior to final demolition work - you are hereby authorized to proceed with demolition work.

Required work shall be accomplished as follows:

a. Dismantling and demolition work will be accomplished under a CPFF Prime Contract.

b. The Monsanto Chemical Company, under Contract No. AT-33-1-GEN-53, will assist in the work by (1) furnishing all equipment, tools, supplies, work clothing, fuel, etc., (2) conducting health-physics surveys as required and (3) furnishing other related services as required to supplement the work of the demolition contractor.

Use of available Commission-owned construction equipment is authorized.

Isolated storage for contaminated materials and equipment will be provided at Mound Laboratory.

Subject: DIRECTIVE FOR THE DEMOLITION AND REMOVAL OF COMMISSION-OWNED FACILITIES FROM THE TALBOTT CORPORATION PROPERTY, DAYTON, OHIO

Work under this directive shall be completed by May 15, 1950.

Cost of the work authorized by this directive is estimated as follows:

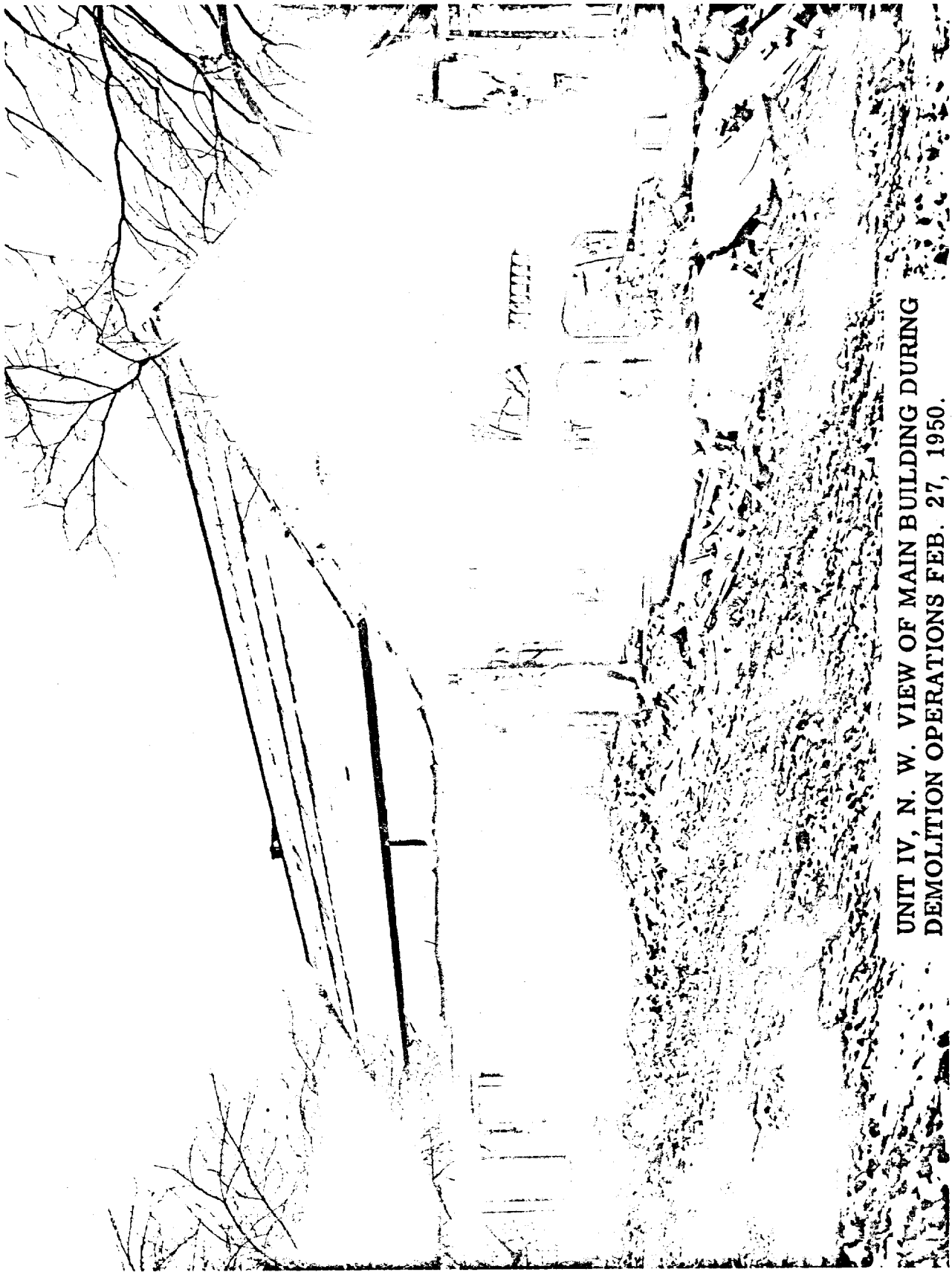
Estimated cost to be incurred for removal of Commission-owned facilities by CPFF prime contract, including an allowance for fixed fee	$32,000
Estimated cost to be incurred by the Monsanto Chemical Company for furnishing material and equipment and assisting in the work including a 25% allowance for indirect costs	$23,000
TOTAL ESTIMATE COST	$55,000

When work under this directive is completed, a "Notice of Completion" shall be promptly transmitted to the Office of Production and Engineering.

When final costs incurred under this directive are determined, a "Closing Statement of Costs" shall be prepared and submitted to the Office of Production and Engineering for distribution.

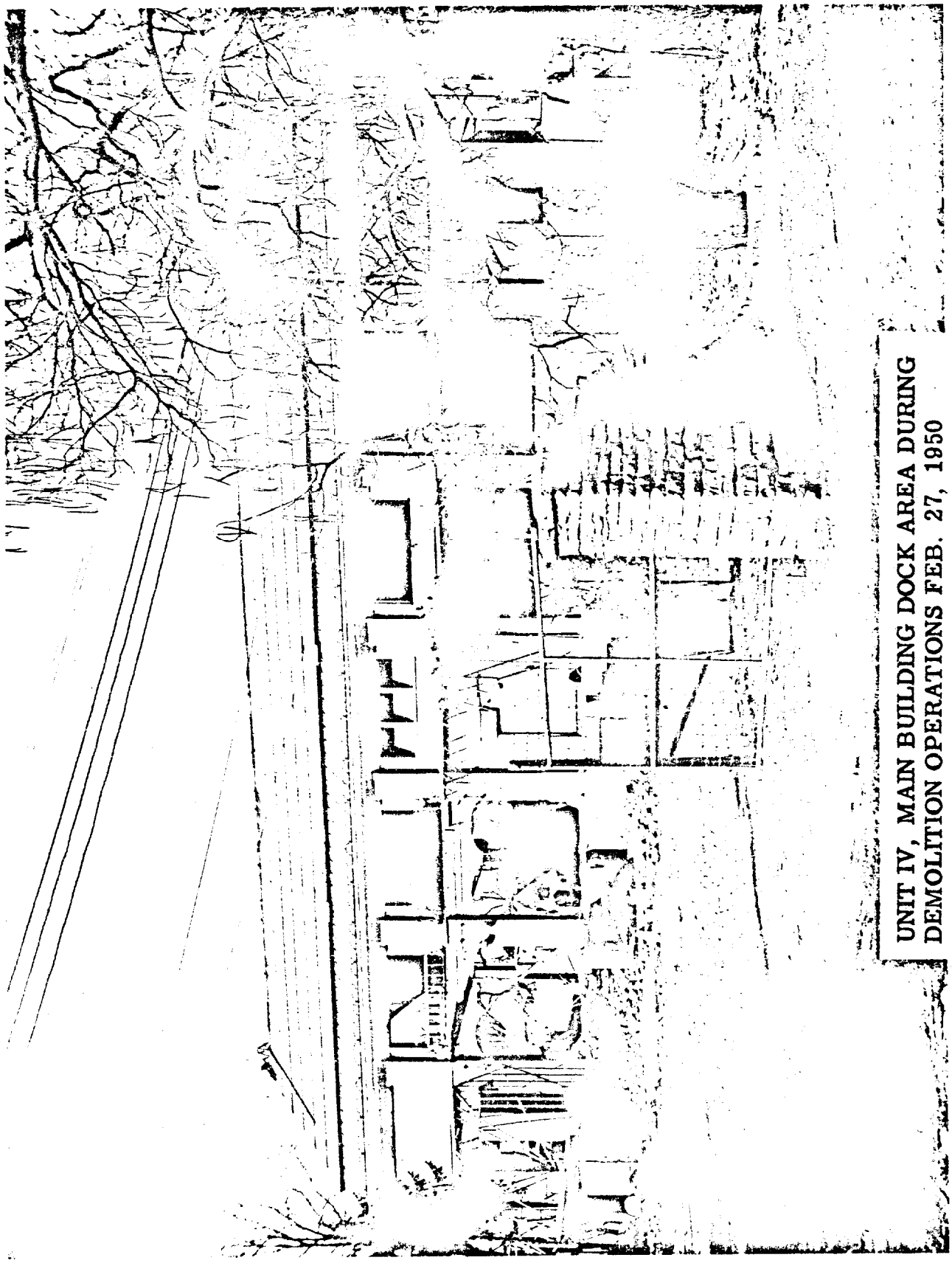
Authority is hereby granted to incur expenditures of $23,000 under Contract No. AT-33-1-GEN-53. Authority is also granted to incur expenditures of $32,000 under a CPFF prime contract. Funds for the work are available under Item Number 9 "Plant and Equipment," current Dayton Area budget submission.

/s/ C. Vanden Bulck
for S. R. Sapirie
Acting Deputy Manager



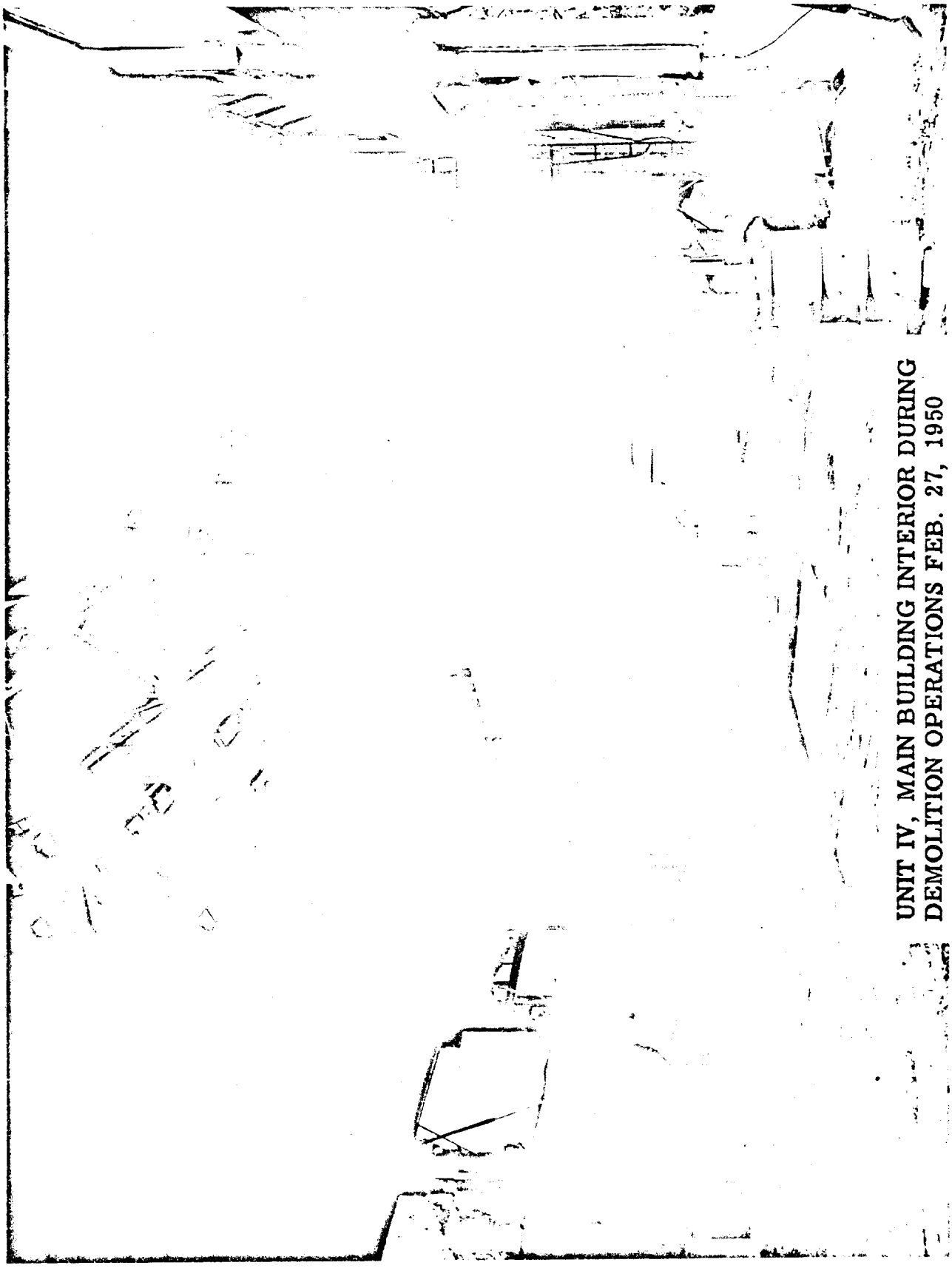
UNIT IV, N. W. VIEW OF MAIN BUILDING DURING DEMOLITION OPERATIONS FEB. 27, 1950.

500093



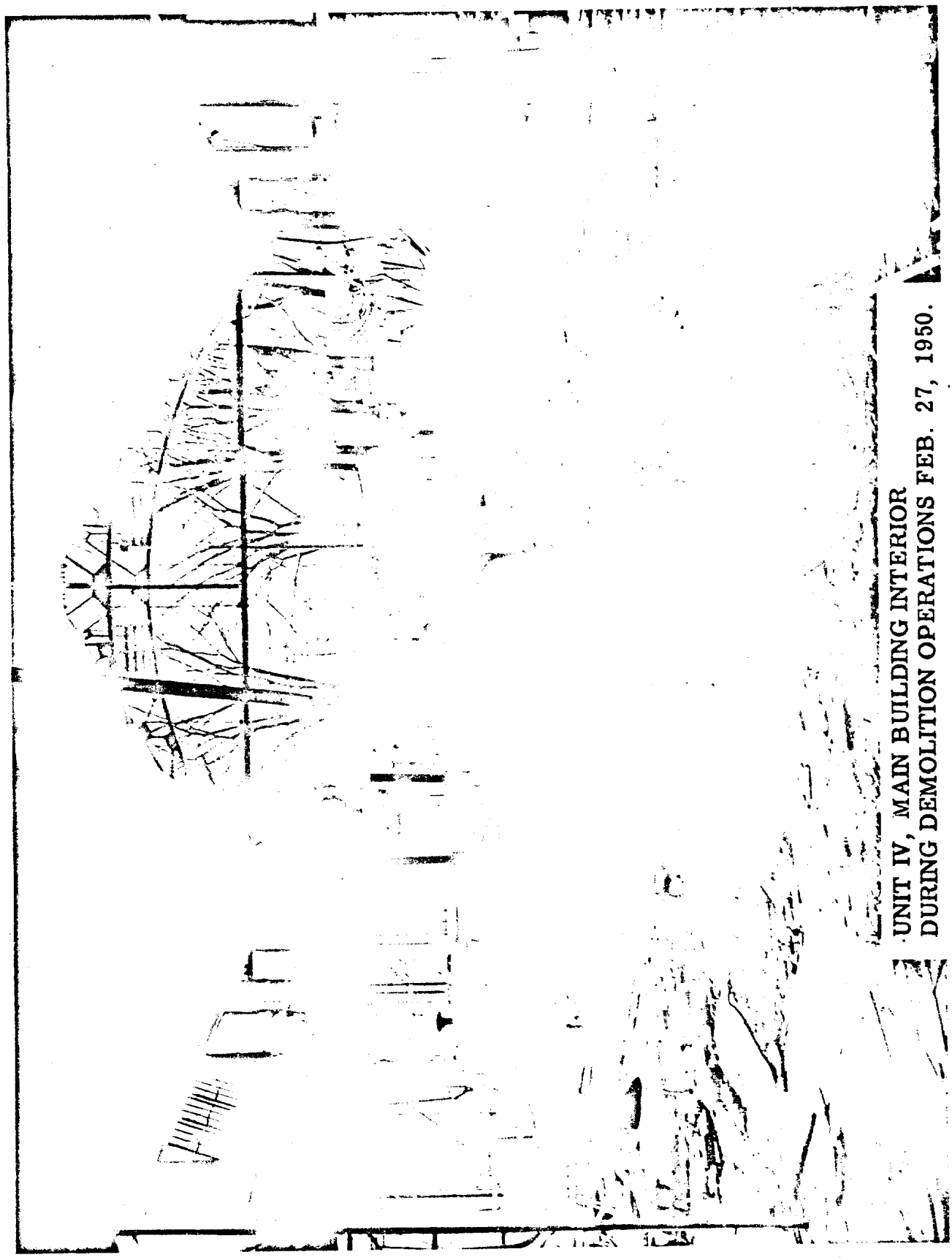
UNIT IV, MAIN BUILDING DOCK AREA DURING DEMOLITION OPERATIONS FEB. 27, 1950

500092

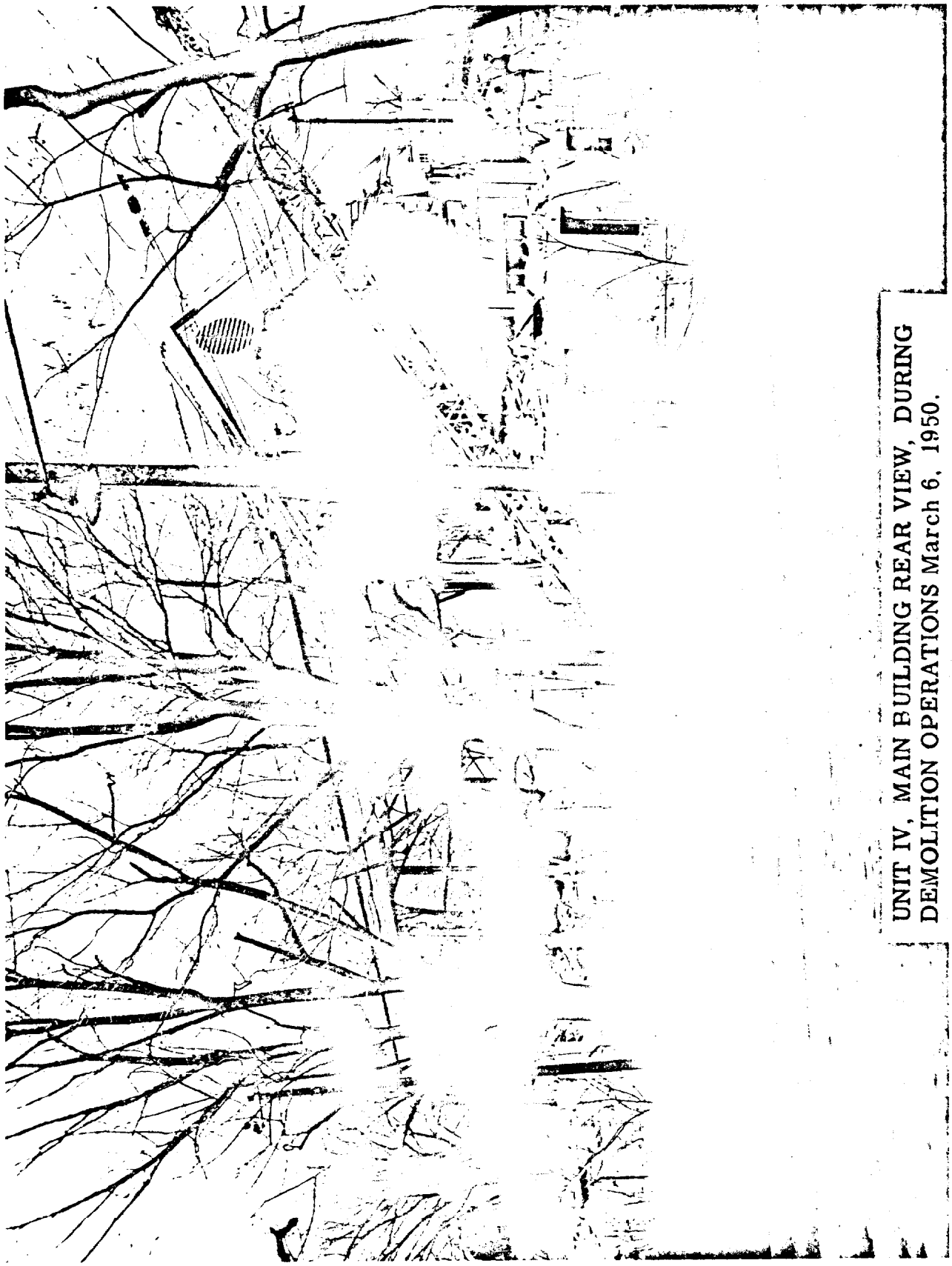


UNIT IV, MAIN BUILDING INTERIOR DURING DEMOLITION OPERATIONS FEB. 27, 1950

500095

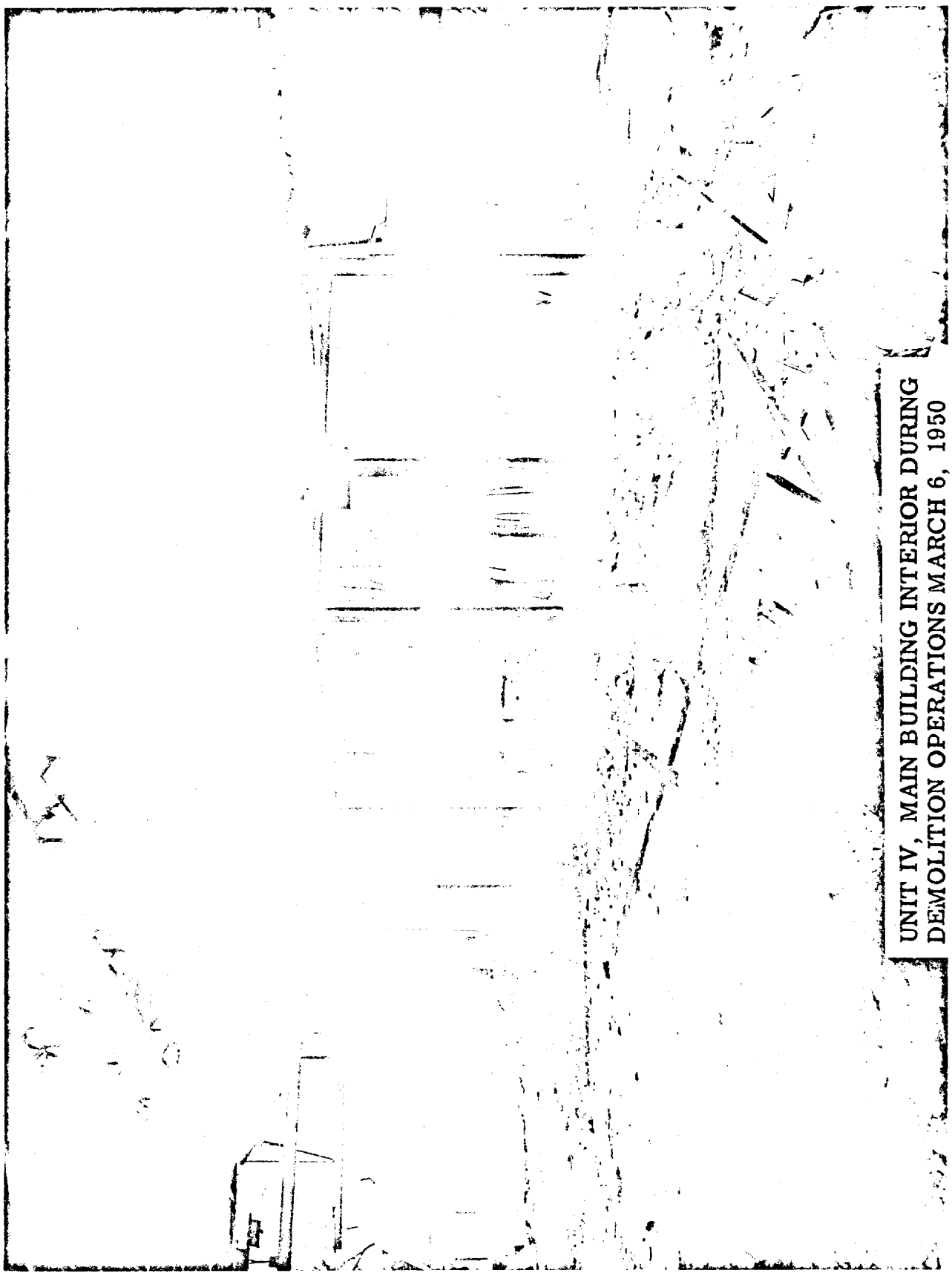


UNIT IV, MAIN BUILDING INTERIOR
DURING DEMOLITION OPERATIONS FEB. 27, 1950.



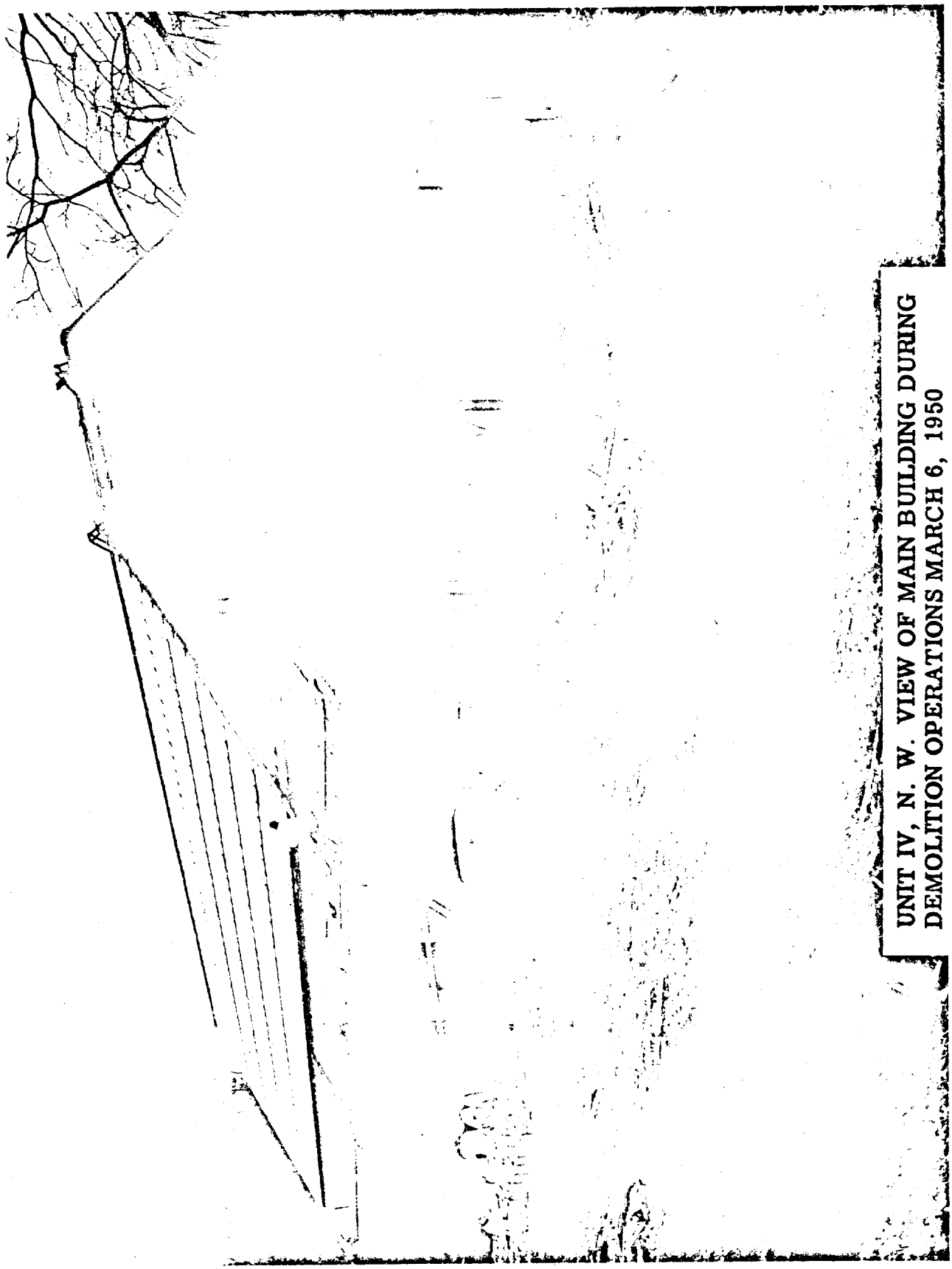
UNIT IV, MAIN BUILDING REAR VIEW, DURING DEMOLITION OPERATIONS March 6, 1950.

500115



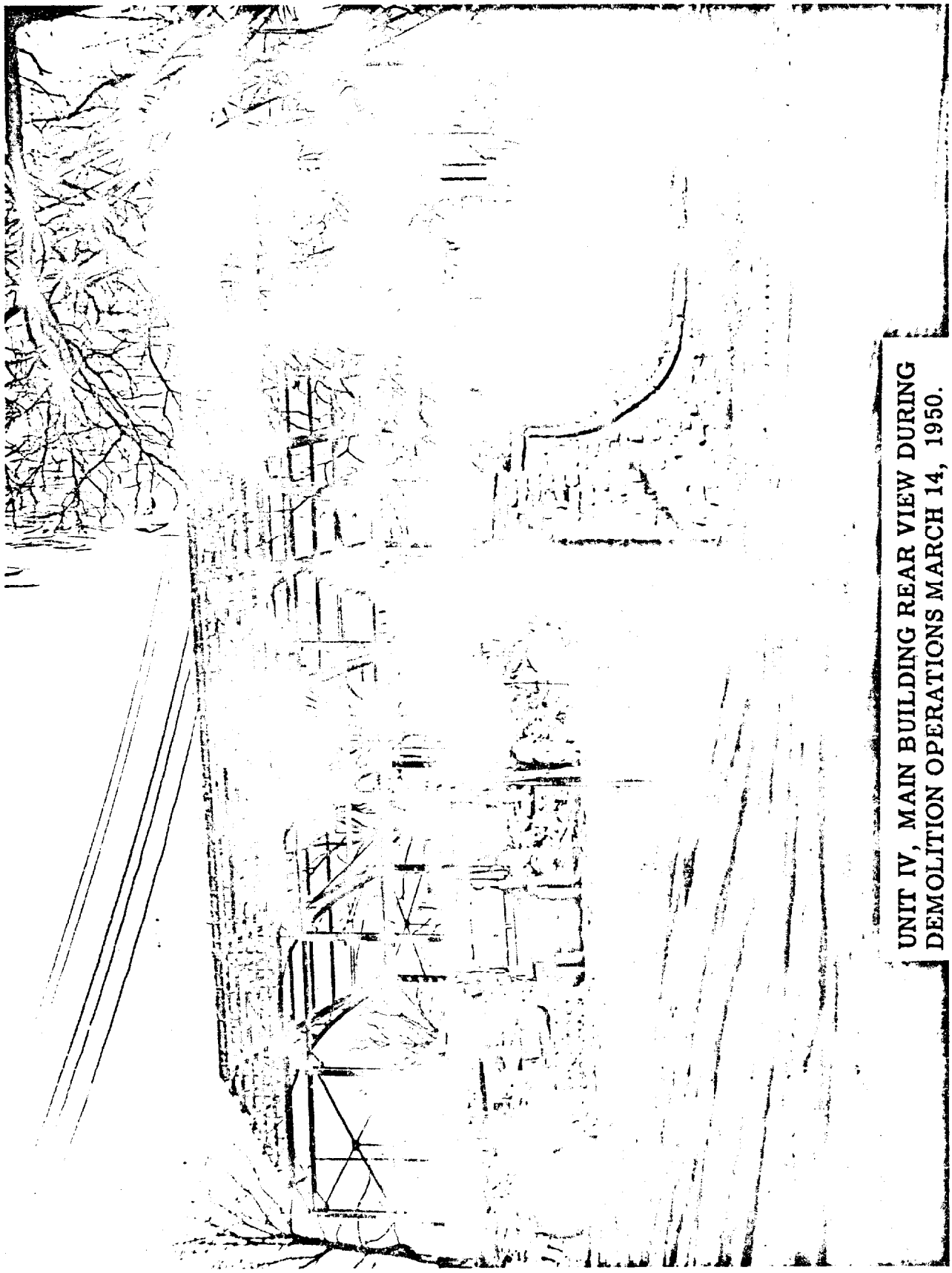
UNIT IV, MAIN BUILDING INTERIOR DURING DEMOLITION OPERATIONS MARCH 6, 1950

500119



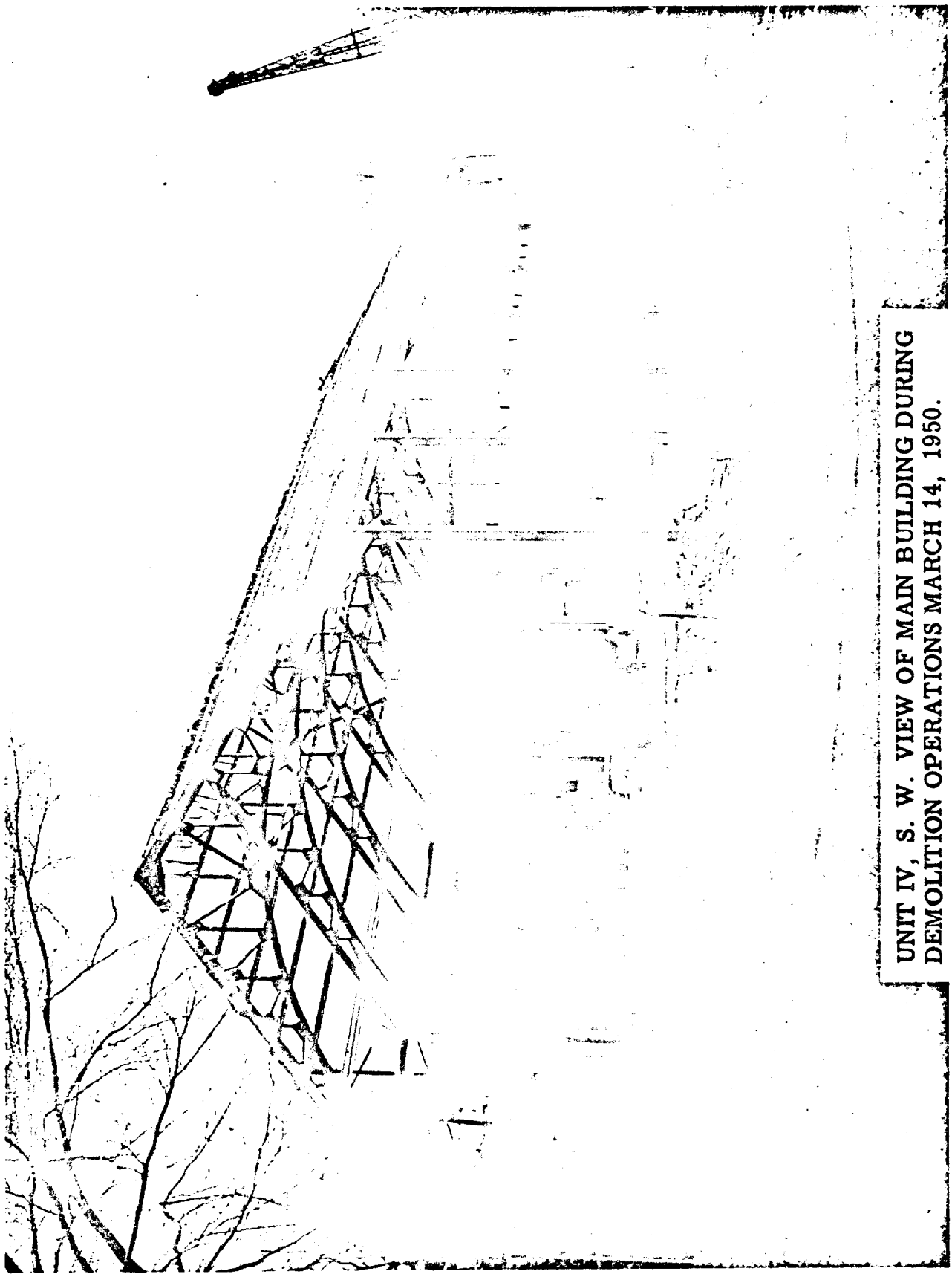
UNIT IV, N. W. VIEW OF MAIN BUILDING DURING DEMOLITION OPERATIONS MARCH 6, 1950

500121



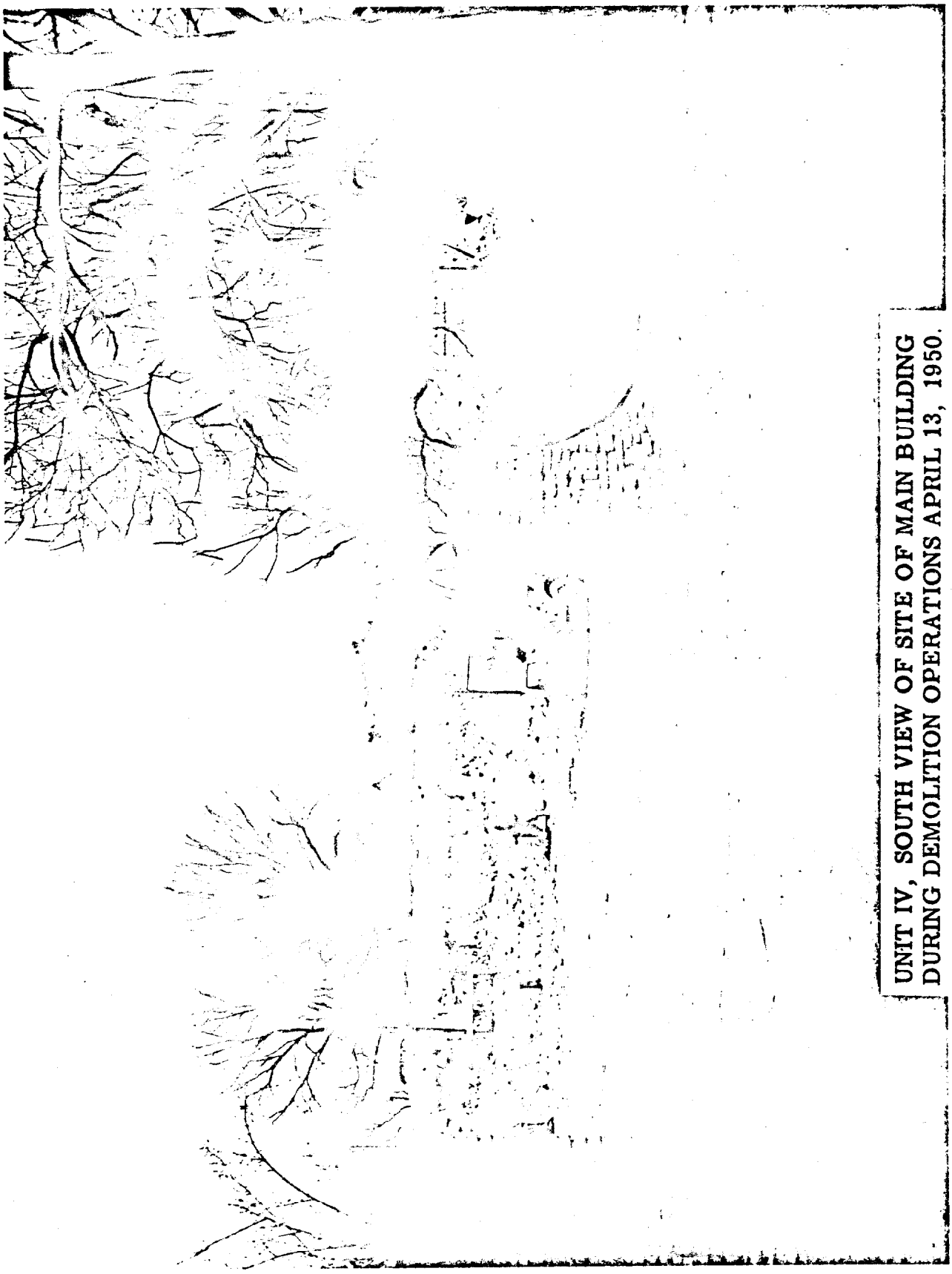
UNIT IV, MAIN BUILDING REAR VIEW DURING DEMOLITION OPERATIONS MARCH 14, 1950.

500135



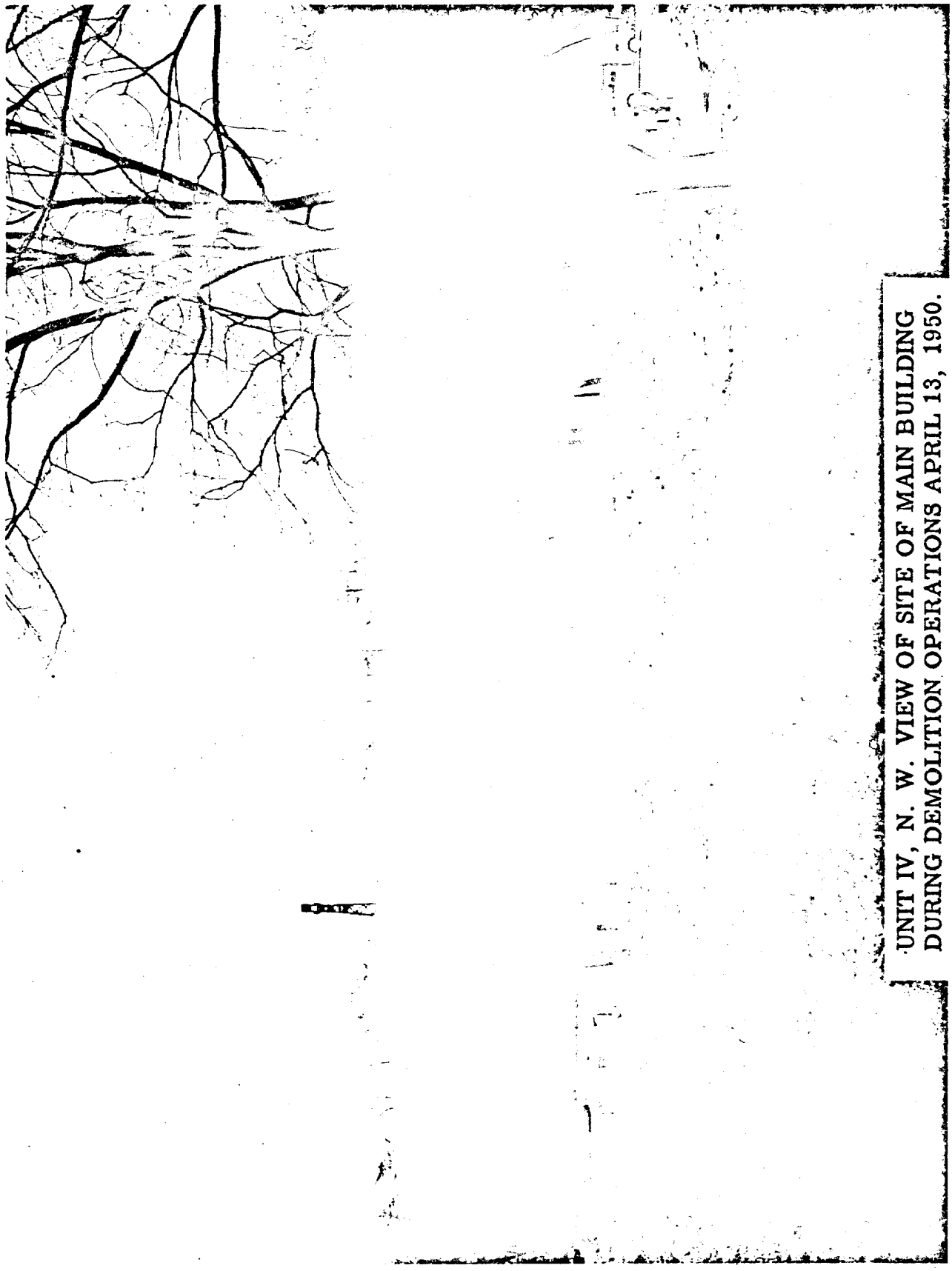
UNIT IV, S. W. VIEW OF MAIN BUILDING DURING DEMOLITION OPERATIONS MARCH 14, 1950.

500133



UNIT IV, SOUTH VIEW OF SITE OF MAIN BUILDING DURING DEMOLITION OPERATIONS APRIL 13, 1950.

5001'73

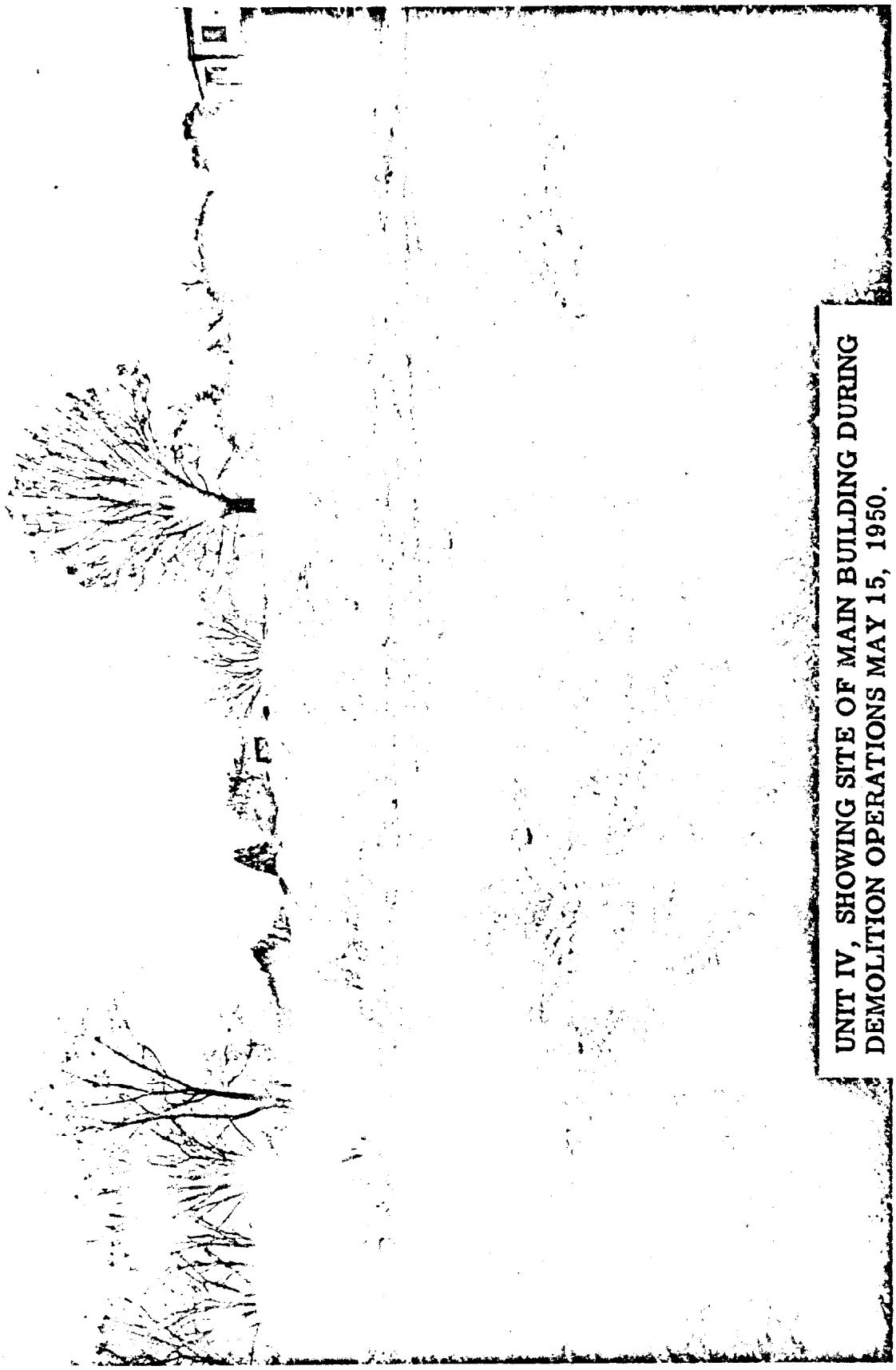


UNIT IV, N. W. VIEW OF SITE OF MAIN BUILDING DURING DEMOLITION OPERATIONS APRIL 13, 1950.

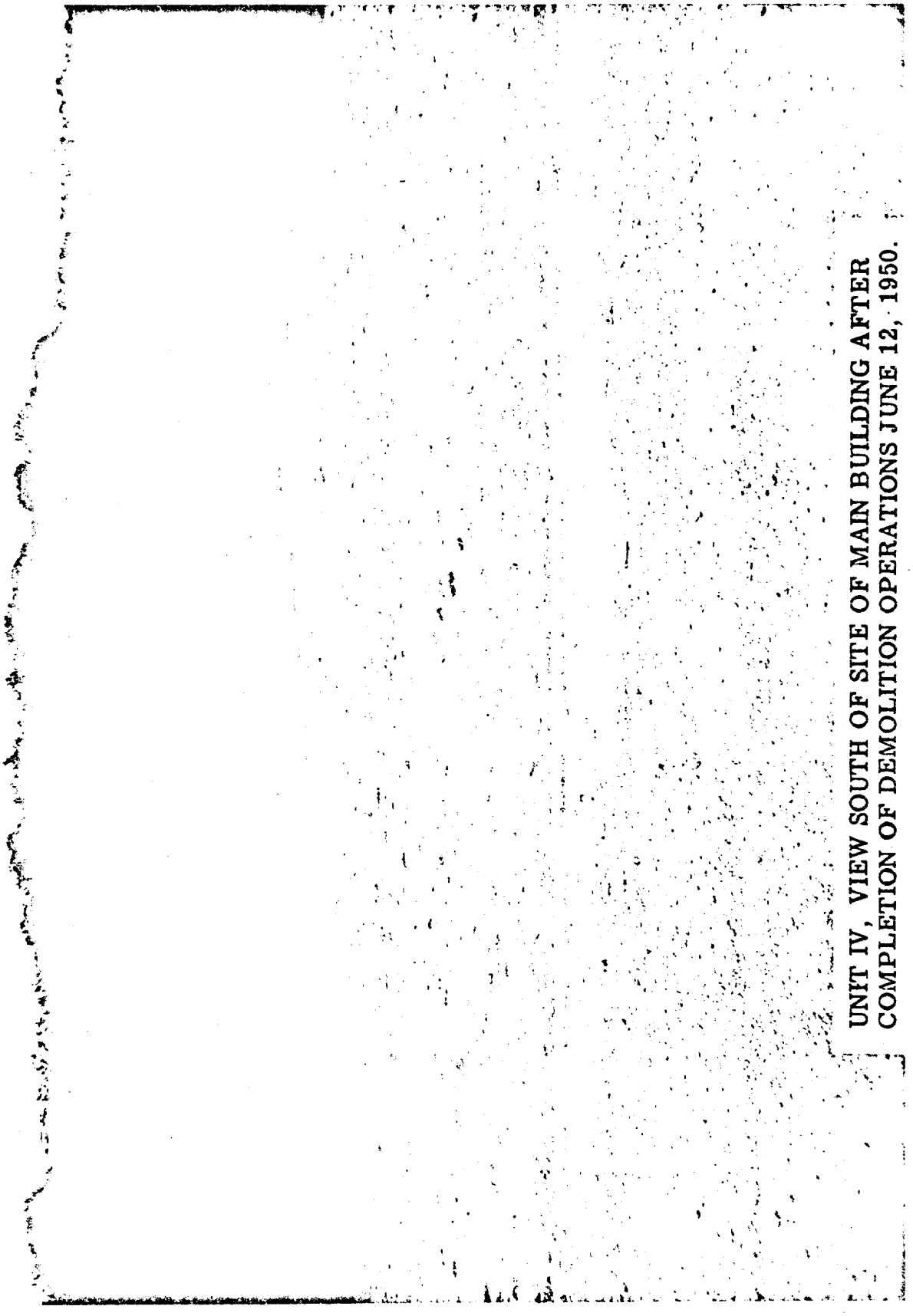
500175

UNIT IV, SHOWING A PORTION OF CONCRETE FOUNDATIONS DURING DEMOLITION OPERATIONS APRIL 14, 1950.

500196

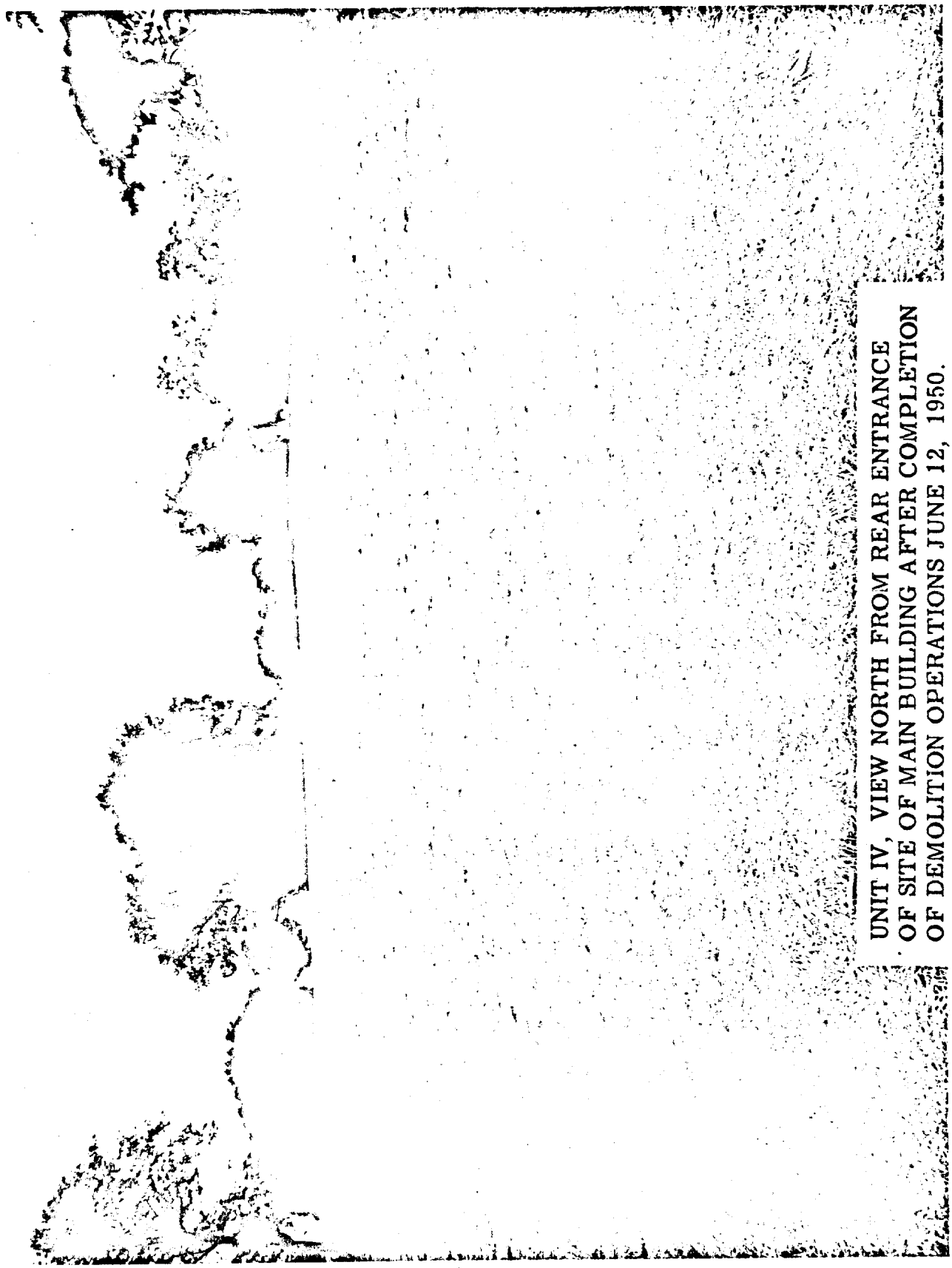


UNIT IV, SHOWING SITE OF MAIN BUILDING DURING DEMOLITION OPERATIONS MAY 15, 1950.



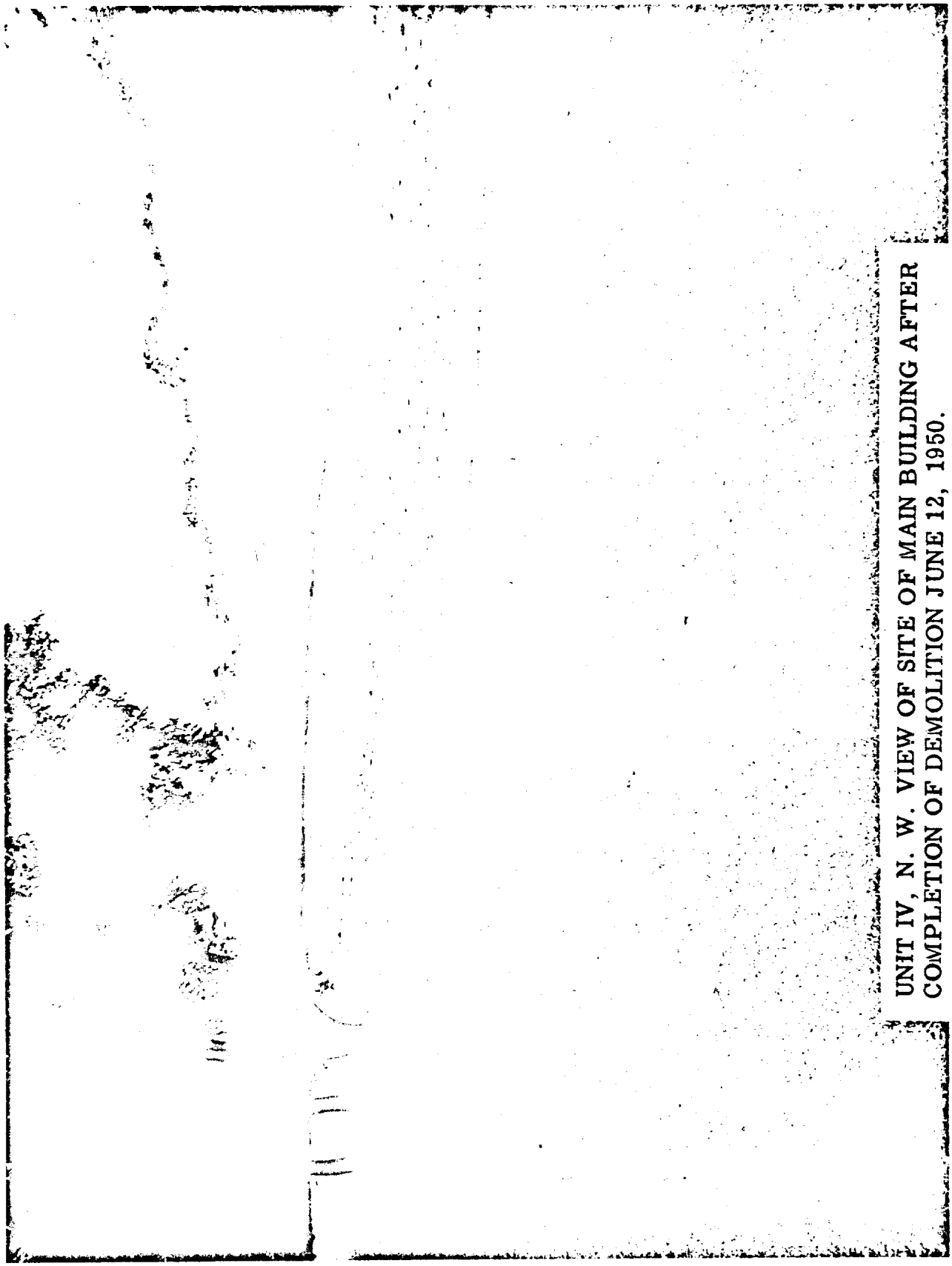
UNIT IV, VIEW SOUTH OF SITE OF MAIN BUILDING AFTER COMPLETION OF DEMOLITION OPERATIONS JUNE 12, 1950.

5UU210



UNIT IV, VIEW NORTH FROM REAR ENTRANCE OF SITE OF MAIN BUILDING AFTER COMPLETION OF DEMOLITION OPERATIONS JUNE 12, 1950.

500215



UNIT IV, N. W. VIEW OF SITE OF MAIN BUILDING AFTER COMPLETION OF DEMOLITION JUNE 12, 1950.

500218

TAB F

TAB F - FINAL SURVEY - UNIT IV

The final survey represents the most accurate of all surveys at Unit IV and covers all areas of the plant. This survey determined whether or not an area was sufficiently decontaminated to be turned over to an outside contractor for demolition. All surveys reported in the attached tables were made by B. I. Johnson of the Mound Laboratory Health Survey Section. An estimated fifty per cent (50%) of the total floor surface was covered. An estimated ten per cent (10%) of all vertical surfaces and less accessible horizontal surfaces was covered.

The objective of this cleaning process was to leave all areas with no detectable wipe and a direct reading of less than 50,000 alpha d./min./100 cm.^{2} as measured with the various alpha meters available. A wipe sample represents the rubbing of an area of approximately 40 square inches with a 4.25 cm. disk of filter paper held with two fingers. "Not detectable" means that no reading was detected on an alpha meter calibrated from 250 to 500 d./min./division, depending upon the sensitivity of the individual instrument. Efforts to evaluate these wipes in a parallel plate alpha chamber were unsuccessful due to false readings caused by chemical ionization from the reagents used to clean the surfaces, and due to protruding fibers producing false counts due to arcing.

If areas were found to be higher than the limits set, they were reduced by decontamination until a satisfactory level was reached. In some cases decontamination to a level of less than 50,000 d./min./100 cm.^{2} was impossible or impractical, in which case the area or item was dismantled and removed.

The first column in the table indicates a reading recorded, in most cases, before cleaning started. The blanks indicate that no readings were recorded. Readings reported as greater than (>) indicated that they were higher than could be read on the meters available at that time.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Calorimeter Room (Assay)				
Floor northeast			11,780	N.D.
Floor north center			12,860	N.D.
Floor northwest			10,800	N.D.
Floor center			10,800	N.D.
Floor center			11,780	N.D.
Floor center			8,640	N.D.
Floor southeast			13,940	N.D.
Floor south center			7,560	N.D.
Floor southwest			10,800	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Air conditioning duct			3,240	N.D.
Light fixture			4,320	N.D.
Light fixture			2,160	N.D.
Light fixture			4,320	N.D.
Light fixture			4,320	N.D.
Hallway (Assay)				
Hall north			8,000	N.D.
Hall center			10,000	N.D.
Hall center			8,000	N.D.
Hall south			6,000	N.D.
Wall west			0	N.D.
Wall east			0	N.D.
Counting Room (Assay)				
Floor northeast			27,020	N.D.
Floor northwest			21,600	N.D.
Floor center			32,420	N.D.
Floor center			27,020	N.D.
Floor southeast			27,020	N.D.
Floor southwest			24,840	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Lighting fixture			7,560	N.D.
Lighting fixture			8,640	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Szillard Chalmers Room (Assay)				
Floor northeast			16,200	N.D.
Floor northwest			17,280	N.D.
Floor southeast			19,440	N.D.
Floor southwest			10,700	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Lighting fixture			4,320	N.D.
Steam pipe			7,560	N.D.
Store Room (Assay)				
Floor north			13,940	N.D.
Floor southeast			8,640	N.D.
Floor southwest			5,400	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Receiving Room (Assay)				
Floor northeast			9,720	N.D.
Floor northwest			10,800	N.D.
Floor southeast			8,640	N.D.
Floor southwest			7,560	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Lighting fixture			3,240	N.D.
Balance Room (Microassay)				
Floor west	150,000	1,000	19,440	N.D.
Floor center	100,000	1,000	18,360	N.D.
Floor east			18,360	N.D.
Concrete table in center of room			12,860	N.D.
Concrete table in east part of room			13,940	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Door			0	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Rest Room off of East Counting Room				
Window sill			6,480	N.D.
Radiator			10,700	N.D.
Floor north			12,860	N.D.
Floor south			15,020	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Lavatory Room off of East Counting Room				
Window sill			2,160	N.D.
Radiator			0	N.D.
Lavatory			16,200	N.D.
Floor north			10,800	N.D.
Floor south			12,860	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Lounge off of East Counting Room				
Window sill			3,240	N.D.
Radiator			3,240	N.D.
Floor northeast			10,800	N.D.
Floor northwest			8,640	N.D.
Floor center			8,640	N.D.
Floor center			10,800	N.D.
Floor center			8,640	N.D.
Floor southwest			8,640	N.D.
Floor southeast			10,800	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
East Counting Room				
Window sill			5,400	N.D.
Radiator			5,400	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Floor northeast			23,760	N.D.
Floor northwest			12,860	N.D.
Floor center			8,640	N.D.
Floor center			16,200	N.D.
Floor center			10,800	N.D.
Floor center			16,200	N.D.
Floor southwest			8,640	N.D.
Floor southeast			10,800	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Health Counting Room				
Window sill			4,320	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Floor north			10,800	N.D.
Floor center			12,860	N.D.
Floor center			16,200	N.D.
Floor south			19,440	N.D.
Long Tom Counting Room				
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Floor northeast			8,640	N.D.
Floor northwest			10,800	N.D.
Floor southwest			8,640	N.D.
Floor southeast			6,480	N.D.
Firehose			2,160	N.D.
West Counting Room				
Window sill			2,160	N.D.
Radiator top			4,320	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Floor northeast			8,640	N.D.
Floor north center			8,640	N.D.
Floor northwest			10,800	N.D.
Floor center			6,480	N.D.
Floor center			6,480	N.D.
Floor center			8,640	N.D.
Floor southwest			6,480	N.D.
Floor south center			10,800	N.D.
Floor southeast			8,640	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Electronic Office and Supply				
Window sill			2,160	N.D.
Floor northeast			6,480	N.D.
Floor northwest			10,800	N.D.
Floor center			10,800	N.D.
Floor center			8,460	N.D.
Floor center			6,480	N.D.
Floor southwest			11,780	N.D.
Floor southeast			5,400	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Rest Room off of Electronic Room				
Wall north			0	N.D.
Wall west			0	N.D.
Wall south			0	N.D.
Door			0	N.D.
Floor west			12,800	N.D.
Floor east			10,800	N.D.
Lavatory Room				
Wall north			0	N.D.
Wall west			0	N.D.
Wall south			0	N.D.
Floor northeast			4,320	N.D.
Floor center			6,480	N.D.
Floor center			7,560	N.D.
Lavatory			0	N.D.
First Aid Room				
East window sill			10,800	N.D.
North window sill			21,600	N.D.
Lavatory			8,640	N.D.
East side of cabinet (shelves)			6,480	N.D.
West side of cabinet (shelves)			8,640	N.D.
Top of cabinet			10,800	N.D.
Floor northeast			5,400	N.D.
Floor northwest			5,400	N.D.
Floor southeast			10,800	N.D.
Floor southwest			12,860	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Property Office				
Window sill			8,640	N.D.
Radiator			12,860	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Floor northeast			3,240	N.D.
Floor northwest			10,800	N.D.
Floor center			6,480	N.D.
Floor center			7,560	N.D.
Floor center			10,800	N.D.
Floor southeast			3,240	N.D.
Floor southwest			4,320	N.D.
Hot Lounge				
Window sill			10,800	N.D.
Radiator			18,360	N.D.
Wall north			0	N.D.
Wall south			0	N.D.
Wall east			0	N.D.
Wall west			0	N.D.
Floor northeast			28,100	N.D.
Floor northwest			25,920	N.D.
Floor center			21,600	N.D.
Floor center			24,840	N.D.
Floor center			24,840	N.D.
Floor southeast			23,760	N.D.
Floor southwest			20,520	N.D.
Shower Room off of Hot Lounge				
Floor west			28,100	N.D.
Floor east			24,840	N.D.
Floor north			21,600	N.D.
Lavatory			9,720	N.D.
Window sill			5,400	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall west			0	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Operation's Office				
East window sill			5,400	N.D.
South window sill			8,640	N.D.
Radiator			10,800	N.D.
North wall			0	N.D.
East wall			0	N.D.
South wall			0	N.D.
West wall			0	N.D.
Floor northeast			9,720	N.D.
Floor northwest			11,780	N.D.
Floor center			12,860	N.D.
Floor center			12,860	N.D.
Floor center			9,720	N.D.
Floor southwest			12,860	N.D.
Floor southeast (steel trap door)			10,800	N.D.
Middle Section of Auditorium Beam of Ceiling Running North and South				
			2,160	N.D.
			3,240	N.D.
			2,160	N.D.
			1,080	N.D.
			2,160	N.D.
			3,500	N.D.
Center Beam Running East and West				
			1,080	N.D.
			2,160	N.D.
			1,080	N.D.
			3,240	N.D.
Cold Lounge				
Floor southwest			3,240	N.D.
Floor south center			4,320	N.D.
Floor southeast			6,480	N.D.
Floor southeast center			14,040	N.D.
Floor center	60,000	N.D.	9,720	N.D.
Floor northwest center			11,880	N.D.
Floor center	100,000	1,000	21,600	N.D.
Floor northeast center			12,960	N.D.
Floor center	60,000	N.D.	7,560	N.D.
Floor north center (by door)	200,000	1,500	8,640	N.D.
Floor northwest			6,480	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Cold Lounge				
Northwest radiator			20,520	N.D.
Southwest radiator			23,760	N.D.
Ledge around wall			4,320	N.D.
Mantle over fireplace			37,700	N.D.
Side of mantle			4,320	N.D.
Tile in front of fireplace			24,840	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Kitchen off of Cold Lounge				
Floor southeast			16,200	N.D.
Floor southwest (by door)			23,760	N.D.
Floor center			22,680	N.D.
Floor center			19,440	N.D.
Floor northeast			21,600	N.D.
Floor northwest			14,040	N.D.
Overhead cabinet			8,640	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Landing Outside of Cold Lounge				
Floor southeast			6,480	N.D.
Floor southwest			3,240	N.D.
Floor center			21,600	N.D.
Floor center			19,440	N.D.
Steps down to 2nd landing			12,960	N.D.
Second landing			24,840	N.D.
Steps down to 3rd landing			9,720	N.D.
Third landing			20,520	N.D.
Steps down to concrete floor			23,760	N.D.
Bannister			28,080	N.D.
Window sill by 2nd landing			10,800	N.D.
Walls			0	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Hallway off of Room above Squash Court				
Floor southeast			23,760	N.D.
Floor east center by door of auditorium			43,100	N.D.
Floor northeast			32,300	N.D.
Floor center			37,700	N.D.
Floor center			32,300	N.D.
Floor southwest			21,840	N.D.
Floor northwest			27,000	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Lavatory			33,540	N.D.
Drinking fountain			23,760	N.D.
Step down to squash court			14,040	N.D.
Step down to squash court			19,440	N.D.
Ladies Change Room				
Floor southwest			19,440	N.D.
Floor west center			23,760	N.D.
Floor northwest			27,000	N.D.
Floor south center			20,520	N.D.
Floor center			21,600	N.D.
Floor north center			16,200	N.D.
Floor in front of shower cabinets			32,300	N.D.
Floor in front of shower cabinets			23,760	N.D.
Floor southeast			22,680	N.D.
Floor northeast			32,300	N.D.
North shower cabinet floor			30,240	N.D.
North shower cabinet walk			3,240	N.D.
South shower cabinet floor			32,300	N.D.
South shower cabinet walk			4,320	N.D.
Window sill (north wall)			17,280	N.D.
Radiator west			6,480	N.D.
Radiator center			16,200	N.D.
Radiator east			12,960	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Property Office Adjoining Manager's Office				
Floor northeast (by door)			22,680	N.D.
Floor north center			34,460	N.D.
Floor northwest			37,700	N.D.
Floor southwest center			23,760	N.D.
Floor center			22,680	N.D.
Floor southeast center			19,440	N.D.
Floor center			17,280	N.D.
Floor southeast			24,840	N.D.
Floor south center			43,100	N.D.
Floor southwest			34,460	N.D.
Radiator			6,480	N.D.
Window sills (north) wall			4,320	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Manager's Inner Office				
Floor northeast			4,320	N.D.
Floor north center			6,480	N.D.
Floor northwest			6,480	N.D.
Floor center			3,240	N.D.
Floor center			10,800	N.D.
Floor southwest			6,480	N.D.
Floor south center			7,560	N.D.
Floor southeast			8,640	N.D.
Radiator			10,800	N.D.
Window sill (north wall)			6,480	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Manager's Outer Office				
Floor southwest			22,680	N.D.
Floor south center			19,440	N.D.
Floor west center			14,040	N.D.
Floor center			16,200	N.D.
Floor east center			12,960	N.D.
Floor northeast			14,040	N.D.
Floor north center (by door)			11,880	N.D.
Floor northwest			6,480	N.D.
Ledge on south wall (west)			34,460	N.D.
Ledge on south wall (center)			12,960	N.D.
Ledge on south wall (east)			16,200	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Manager's Outer Office				
East window sill			8,640	N.D.
Radiator			14,040	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south (glass)			0	N.D.
Wall west			0	N.D.
Telephone Exchange Room				
Floor northwest			14,040	N.D.
Floor center			16,200	N.D.
Floor center			12,960	N.D.
Floor southeast			11,880	N.D.
Floor southwest			10,800	N.D.
Radiator			4,320	N.D.
Window sill			12,960	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Vestibule and Steps				
Floor northeast			8,640	N.D.
Floor northwest			10,800	N.D.
Floor center			8,640	N.D.
Floor center			10,800	N.D.
Floor southeast			11,880	N.D.
Floor southwest			16,200	N.D.
Wall north (door)			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Window sill (east wall)			12,960	N.D.
First 5 steps down from vestibule			12,960	N.D.
Second 5 steps down from vestibule			8,640	N.D.
Third 5 steps down from vestibule			16,200	N.D.
Bannister			16,200	N.D.
Hallway Outside Counting Room				
Floor north			10,800	N.D.
Floor center			12,960	N.D.
Floor southeast			14,040	N.D.
Floor southwest			19,440	N.D.
Radiator			32,300	N.D.
Lavatory			30,240	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Design Laboratory				
Floor northeast			5,400	N.D.
Floor north center			23,760	N.D.
Floor northwest			37,800	N.D.
Floor center	70,000	3,000	45,360	N.D.
Floor center			16,200	N.D.
Floor center			21,600	N.D.
Floor southeast			24,840	N.D.
Floor south center			26,000	N.D.
Floor southwest			32,400	N.D.
Window sill south			12,960	N.D.
Window sill west			8,640	N.D.
Wall north			10,800	N.D.
Wall east			12,960	N.D.
Wall south			8,640	N.D.
Wall west			10,800	N.D.
Boiler Room				
Floor northeast corner			21,600	N.D.
Floor north center			3,240	N.D.
Floor north center of floor			16,200	N.D.
Floor northwest corner			6,480	N.D.
Floor center			35,660	N.D.
Floor center			5,400	N.D.
Floor center			15,020	N.D.
Floor southeast corner			32,420	N.D.
Floor south center			24,840	N.D.
Floor southwest corner			18,360	N.D.
Metal step leading to boiler room			2,160	N.D.
Metal step leading to boiler room			3,240	N.D.
Metal step leading to boiler room			0	N.D.
Metal step leading to boiler room			2,160	N.D.
Metal step leading to boiler room			4,320	N.D.
Coal hopper			2,160	N.D.
Coal hopper			0	N.D.
Coal hopper			3,240	N.D.
Coal hopper			4,320	N.D.
Boiler and pipework			2,160	N.D.
Boiler and pipework			0	N.D.
Boiler and pipework			3,240	N.D.
Boiler and pipework			5,400	N.D.
Boiler and pipework			2,160	N.D.
Boiler and pipework			0	N.D.
Boiler and pipework			3,240	N.D.
Boiler and pipework			6,480	N.D.
Boiler and pipework			3,240	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Coal Bin (Room adjoining Boiler Room)				
Floor			2,160	N.D.
Floor			3,240	N.D.
Floor			0	N.D.
Floor			2,160	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Storage Room Adjoining Boiler Room				
Floor northeast			5,400	N.D.
Floor north center			6,480	N.D.
Floor northwest			8,640	N.D.
Floor center			4,320	N.D.
Floor center			3,240	N.D.
Floor southeast			6,480	N.D.
Floor southwest			10,800	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
South Tunnel				
South wall			32,420	N.D.
South wall			9,720	N.D.
South wall			8,640	N.D.
South wall			6,840	N.D.
North wall			24,840	N.D.
North wall			27,020	N.D.
North wall			10,800	N.D.
North wall			30,260	N.D.
North wall			9,720	N.D.
Pipe work			8,640	N.D.
Pipe work			6,480	N.D.
Pipe work			3,240	N.D.
Pipe work			7,560	N.D.
Pipe work			10,800	N.D.
North Tunnel				
South wall			6,480	N.D.
South wall			8,640	N.D.
South wall			10,800	N.D.
South wall			11,780	N.D.
South wall			6,480	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
North Tunnel				
North wall			8,640	N.D.
North wall			3,240	N.D.
North wall			10,800	N.D.
North wall			6,840	N.D.
North wall			4,320	N.D.
North wall			8,640	N.D.
Pipe work			6,480	N.D.
Pipe work			10,800	N.D.
Pipe work			12,860	N.D.
Pipe work			11,780	N.D.
Pipe work			8,640	N.D.
Pipe work			6,480	N.D.
Upper Greenhouse				
North greenhouse floor northeast (dirt)			740	N.D.
Floor northwest (dirt)			370	N.D.
Floor center (dirt)			0	N.D.
Floor center (dirt)			0	N.D.
Floor southeast (dirt)			0	N.D.
Floor southwest (dirt)			555	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Steam pipe			555	N.D.
Center Greenhouse				
Northeast floor (concrete)			1,110	N.D.
North center floor (concrete)			1,480	N.D.
Northwest floor (concrete)			555	N.D.
Southeast floor (dirt)			370	N.D.
Southwest floor (dirt)			370	N.D.
Wall north			0	N.D.
Wall west			0	N.D.
Wall east			0	N.D.
Bench on south side			0	N.D.
South Greenhouse				
East floor (dirt)			370	N.D.
Center floor (dirt)			555	N.D.
West floor (dirt)			0	N.D.
North bench east end			370	N.D.
North bench west end			0	N.D.
South bench east end			0	N.D.
South bench west end			0	N.D.
West wall			0	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Shower Room off of Property Office				
Floor northeast			5,550	N.D.
Floor center			7,400	N.D.
Floor northwest			3,700	N.D.
Shower cabinet floor			2,405	N.D.
Shower cabinet walk			555	N.D.
North wall of Lavatory Room			0	N.D.
East wall of Lavatory Room			0	N.D.
South wall of Lavatory Room			0	N.D.
West wall of Lavatory Room			0	N.D.
Storage Vault (Northwest corner outside)				
Floor southeast			18,500	N.D.
Floor northeast			14,800	N.D.
Floor northwest			10,300	N.D.
Floor southwest			10,300	N.D.
Floor center			12,950	N.D.
North wall			0	N.D.
East wall			0	N.D.
West wall			0	N.D.
North outside wall			0	N.D.
East outside wall			0	N.D.
West outside wall			0	N.D.
Top			0	N.D.
Duct Room over Squash Court				
Floor northeast			14,800	N.D.
Floor north center			16,650	N.D.
Floor northwest			11,100	N.D.
Floor northeast center			7,400	N.D.
Floor southeast center			3,700	N.D.
Floor center			3,700	N.D.
Floor center			7,400	N.D.
Floor center			9,250	N.D.
Floor southeast			5,550	N.D.
Floor south center			11,100	N.D.
Floor southwest			3,700	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Window sill southwest			3,700	N.D.
Window sill west center			5,550	N.D.
Window sill northwest			3,700	N.D.
Radiator by west wall			9,250	N.D.
Radiator by east wall			7,400	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
East Half of South Greenhouse				
Northeast	92,800	2,220	Removed	
Northeast center	255,200	2,405	Removed	
North center	174,000	2,220	Removed	
Northwest center	116,000	2,220	Removed	
Northwest	348,000	2,775	Removed	
West center of walkway	1,000,000	3,700	Removed	
West center of walkway	2,000,000	3,700	Removed	
Center of walkway	3,000,000	5,250	Removed	
East center of walkway	500,000	20,000	Removed	
East center of walkway	1,000,000	30,000	Removed	
Southeast of walkway	>5,000,000	50,000	Removed	
Southeast center	1,000,000	40,000	Removed	
Center	2,000,000	30,000	Removed	
Southwest center	1,000,000	20,000	Removed	
Southwest	500,000	12,000	Removed	
Product Storage off of South Greenhouse				
Floor southeast	232,000	2,775	Removed	
Floor east center	208,800	1,850	Removed	
Floor northeast	139,200	2,405	Removed	
Floor center	255,200	2,220	Removed	
Floor center	290,000	1,850	Removed	
Floor center	266,800	1,110	Removed	
Floor southwest	174,000	740	Removed	
Floor west center	290,000	2,220	Removed	
Floor northwest	255,200	2,405	Removed	
Floor West Section of South Greenhouse (Pfaudler Storage)				
Floor northeast			23,720	N.D.
Floor north center			12,960	N.D.
Floor northwest			37,800	N.D.
Floor west center			21,600	N.D.
Floor center			11,880	N.D.
Floor southwest			10,800	N.D.
Floor south center			12,960	N.D.
Floor southeast			8,640	N.D.
Floor south center			14,040	N.D.
Floor center			24,840	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
South Greenhouse West Half of Center Section Floor				
Floor northwest	127,600	555	Removed	
Floor northwest center	104,400	1,110	Removed	
Floor north center	139,200	740	Removed	
Floor northeast center	84,200	740	Removed	
Floor northeast	208,800	555	Removed	
Floor east center of walkway	324,800	925	Removed	
Floor center of walkway	290,000	1,480	Removed	
Floor center of walkway	301,600	1,850	Removed	
Floor center of walkway	174,000	1,110	Removed	
Floor southwest	255,200	740	Removed	
Floor southwest center	324,800	370	Removed	
Floor south center	406,000	925	Removed	
Floor scutheast center	440,800	555	Removed	
Floor southeast	324,800	370	Removed	
East Section of South Greenhouse				
Southeast	255,200	555	Removed	
East center	266,800	1,110	Removed	
North east	208,800	925	Removed	
North center	266,800	555	Removed	
Center	290,000	740	Removed	
South center	348,000	740	Removed	
Southwest	127,600	370	Removed	
West center	290,000	925	Removed	
Northwest	348,000	925	Removed	
Glass Roof of South Greenhouse				
East end of roof			22,000	N.D.
East end of roof			19,250	N.D.
East end of roof			29,250	N.D.
East end of roof			22,000	N.D.
East end of roof				
East end of roof			32,000	N.D.
Center of roof			24,750	N.D.
Center of roof			29,250	N.D.
Center of roof	55,000			
Center of roof			16,500	N.D.
Center of roof			17,650	N.D.
West end of roof			3,976	N.D.
West end of roof			2,840	N.D.
West end of roof			726	N.D.
West end of roof			1,704	N.D.
West end of roof			2,272	N.D.
West end of roof			3,408	N.D.
West end of roof			4,260	N.D.
West end of roof			8,250	N.D.
West end of roof			8,250	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Window Sill on South Upper Side of Auditorium				
East Group of Windows	69,600		Removed	
East Group of Windows	208,000		Removed	
East Group of Windows	150,800		Removed	
East Group of Windows	82,800		Removed	
Center Group of Windows			15,800	N.D.
Center Group of Windows	82,800		Removed	
Center Group of Windows	81,200		Removed	
Center Group of Windows	81,200		Removed	
West Group of Windows	82,800		Removed	
West Group of Windows	150,800		Removed	
West Group of Windows	104,400		Removed	
West Group of Windows	139,200		Removed	
South Vertical Wall of Auditorium Over Greenhouse (Concrete)				
East end of wall (by precipitron exhaust)			13,750	N.D.
East end of wall (by precipitron exhaust)			24,750	N.D.
East end of wall (by precipitron exhaust)			8,250	N.D.
East end of wall (by precipitron exhaust)			5,780	N.D.
Center section of wall			2,272	N.D.
Center section of wall			2,272	N.D.
Center section of wall			1,704	N.D.
Center section of wall			2,840	N.D.
West end of wall			2,272	N.D.
West end of wall			2,840	N.D.
West end of wall			3,124	N.D.
West end of wall			3,692	N.D.
West end of wall			2,272	N.D.
Roof of Acid Storage House				
North center section of roof			32,420	N.D.
Northwest section of roof			29,180	N.D.
Center section of roof			24,840	N.D.
Center section of roof			19,440	N.D.
Center section of roof			27,020	N.D.
Center section of roof			18,360	N.D.
Southeast section of roof			36,740	N.D.
South center section of roof			24,840	N.D.
Southwest section of roof			17,280	N.D.
Wire Mesh over Upper Part of Glass Roof over South Greenhouse				
Glass roof over south greenhouse			22,000	N.D.
Glass roof over south greenhouse			19,250	N.D.
Glass roof over south greenhouse			29,250	N.D.
Glass roof over south greenhouse			35,750	N.D.
Glass roof over south greenhouse			16,500	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
South Outside and Wall Inside Greenhouse				
East section of south wall			8,250	N.D.
East section of south wall			16,500	N.D.
East section of south wall			27,500	N.D.
East section of south wall			33,000	N.D.
Center section of south wall			20,050	N.D.
Center section of south wall			19,250	N.D.
Center section of south wall			18,250	N.D.
Center section of south wall			20,050	N.D.
Center section of south wall			8,250	N.D.
West section of south wall			5,500	N.D.
West section of south wall			3,408	N.D.
West section of south wall			2,840	N.D.
West section of south wall			5,680	N.D.
West section of south wall			4,260	N.D.
West Outside Wall of Cold Lounge				
West outside wall of cold lounge			0	N.D.
West outside wall of cold lounge			0	N.D.
West outside wall of cold lounge			0	N.D.
West outside wall of cold lounge			0	N.D.
West outside wall of cold lounge			0	N.D.
North Outside Wall of Women's Locker Room				
North outside wall of women's locker room			0	N.D.
North outside wall of women's locker room			0	N.D.
North outside wall of women's locker room			0	N.D.
North outside wall of women's locker room			0	N.D.
North outside wall of women's locker room			0	N.D.
West Outside Wall of Telephone Room				
West outside wall of Telephone Room			0	N.D.
West outside wall of Telephone Room			0	N.D.
West outside wall of Telephone Room			0	N.D.
North Outside Wall of Telephone Room				
North outside wall of Telephone Room			0	N.D.
North outside wall of Telephone Room			0	N.D.
North outside wall of Telephone Room			0	N.D.
North outside wall of Telephone Room			0	N.D.
East Outside Wall of Telephone Room				
East outside wall of Telephone Room			0	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Roof over Ladies Locker Room				
West section of roof			8,250	N.D.
West section of roof			11,000	N.D.
West section of roof			22,000	N.D.
West section of roof			8,250	N.D.
Center section of roof			5,500	N.D.
Center section of roof			5,496	N.D.
Center section of roof			5,500	N.D.
East section of roof			5,500	N.D.
East section of roof			5,212	N.D.
East section of roof			2,556	N.D.
East section of roof			4,260	N.D.
Roof over Cold Lounge			4,260	N.D.
Roof over Cold Lounge			1,704	N.D.
Roof over Cold Lounge			2,272	N.D.
Roof over Cold Lounge			2,840	N.D.
Roof over Cold Lounge			2,840	N.D.
Sides of chimney from fireplace			0	N.D.
Sides of chimney from fireplace			0	N.D.
Sides of chimney from fireplace			0	N.D.
Sides of chimney from fireplace			0	N.D.
Sides of chimney from fireplace			0	N.D.
Roof over Telephone Room and vestibule			0	N.D.
Roof over Telephone Room and vestibule			0	N.D.
Roof over Telephone Room and vestibule			0	N.D.
Roof over Telephone Room and vestibule			0	N.D.
Roof over Telephone Room and vestibule			0	N.D.
Railing around roof of Telephone Room and vestibule			0	N.D.
Railing around roof of Telephone Room and vestibule			0	N.D.
Railing around roof of Telephone Room and vestibule			0	N.D.
Railing around roof of Telephone Room and vestibule			0	N.D.
Spouting around roof of Telephone Room			5,680	N.D.
Spouting around roof of Telephone Room			4,260	N.D.
Spouting around roof of Telephone Room			2,272	N.D.
Spouting around roof of Telephone Room			3,408	N.D.
Copper Sheeting of Roof over Auditorium Proper				
West section of roof			1,420	N.D.
West section of roof			2,556	N.D.
West section of roof			1,988	N.D.
West section of roof			2,840	N.D.
West section of roof			3,124	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Copper Sheeting of Roof over Auditorium Proper				
West center section of roof			5,112	N.D.
West center section of roof			3,408	N.D.
West center section of roof			3,692	N.D.
West center section of roof			3,124	N.D.
Center section of roof			1,988	N.D.
Center section of roof			5,112	N.D.
Center section of roof			2,556	N.D.
Center section of roof			1,988	N.D.
Urine Collection Room in Old Changehouse				
Floor northeast			5,400	N.D.
Floor northwest			6,480	N.D.
Floor southeast			10,800	N.D.
Floor southwest			10,800	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Urine trough			3,240	N.D.
Locker Room over Garage				
Floor northeast			21,600	N.D.
Floor north center			20,520	N.D.
Floor northwest	60,000	N.D.	30,260	N.D.
Floor center			27,020	N.D.
Floor center	60,000	500	19,440	N.D.
Floor center			16,200	N.D.
Floor center			13,940	N.D.
Floor southwest			10,800	N.D.
Floor south center			21,600	N.D.
Floor southeast			32,420	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Hot side of Change House over Garage				
Shower cabinet			10,800	N.D.
Shower cabinet			13,940	N.D.
Shower cabinet			12,860	N.D.
Shower cabinet			10,800	N.D.
Walkway around shower cabinet			10,800	N.D.
Walkway around shower cabinet			13,940	N.D.
Walkway around shower cabinet			12,860	N.D.
Walkway around shower cabinet			12,860	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Hot Side of Change House over Garage				
Washroom				
Floor northeast			16,200	N.D.
Floor north center			21,600	N.D.
Floor northwest			13,940	N.D.
Floor center			16,200	N.D.
Floor center			15,020	N.D.
Floor center			10,800	N.D.
Floor southeast			16,200	N.D.
Floor south center			17,280	N.D.
Floor southwest			10,800	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Wash basin (trough on east side)			4,320	N.D.
Wash basin (trough on south side)			3,240	N.D.
Roof of Garage				
North side east end (sloping part of roof)			600	N.D.
North side center (sloping part of roof)			400	N.D.
North side center (sloping part of roof)			0	N.D.
North side center (sloping part of roof)			600	N.D.
North side west end (sloping part of roof)			0	N.D.
North side (tin over windows flat part of roof)			6,300	N.D.
North side (tin over windows flat part of roof)			4,200	N.D.
North side (tin over windows flat part of roof)			5,000	N.D.
North side (tin over windows flat part of roof)			4,200	N.D.
North side (tin over windows flat part of roof)			6,300	N.D.
West side of roof (sloping part of roof)			1,200	N.D.
West side of roof (sloping part of roof)			1,600	N.D.
West side of roof (sloping part of roof)			1,400	N.D.
West side of roof (sloping part of roof)			600	N.D.
Roof of Garage				
South side of roof (sloping part of roof)			800	N.D.
South side west end (sloping part of roof)			600	N.D.
South side center (sloping part of roof)			400	N.D.
South side center (sloping part of roof)			0	N.D.
South side center (sloping part of roof)			800	N.D.
South side east end (sloping part of roof)			600	N.D.
East side (sloping part of roof)			600	N.D.
East side (sloping part of roof)			400	N.D.
East side (sloping part of roof)			0	N.D.
East side (sloping part of roof)			800	N.D.
East side (sloping part of roof)			600	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Roof over Guards Locker Room and Tool Room				
Northeast part of roof			4,200	N.D.
North center of roof			3,200	N.D.
North center of roof			3,800	N.D.
Northwest of roof			2,800	N.D.
Center of roof			8,400	N.D.
Center of roof			6,300	N.D.
Center of roof			5,000	N.D.
Center of roof			8,400	N.D.
Southwest of roof			6,300	N.D.
South center of roof			5,000	N.D.
Southeast of roof			8,400	N.D.
Roof over Hot Storage				
Northeast part of roof			5,000	N.D.
Northwest part of roof			8,400	N.D.
Center part of roof			8,400	N.D.
Center part of roof			12,600	N.D.
Center part of roof			8,400	N.D.
Southeast part of roof			10,500	N.D.
South center part of roof			6,300	N.D.
Southwest part of roof			8,400	N.D.
Hot Storage Room				
Floor northeast (dirt floor)			27,020	N.D.
Floor north center (dirt floor)			30,260	N.D.
Floor northwest (dirt floor)			21,600	N.D.
Floor center (dirt floor)			11,780	N.D.
Floor center (dirt floor)			13,940	N.D.
Floor center (dirt floor)			16,200	N.D.
Floor southeast (dirt floor)			23,760	N.D.
Floor south center (dirt floor)			10,800	N.D.
Floor southwest (dirt floor)			15,020	N.D.
Ledge around east and south walls			19,440	N.D.
Ledge around east and south walls			17,280	N.D.
Ledge around east and south walls			27,020	N.D.
Ledge around east and south walls			16,200	N.D.
South wall			12,860	N.D.
West wall			6,480	N.D.
North wall			3,240	N.D.
East wall			6,480	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Guards Locker Room				
Floor northeast			7,560	N.D.
Floor north center			5,400	N.D.
Floor northwest	100,000	500	11,780	N.D.
Floor center			3,240	N.D.
Floor center			4,320	N.D.
Floor center	100,000	500	10,800	N.D.
Floor southeast			8,640	N.D.
Floor south center			6,480	N.D.
Floor south west	100,000	500	11,780	N.D.
Wall south			2,160	N.D.
Wall west			3,240	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Lavatory			8,640	N.D.
Overhead pipe work			16,200	N.D.
Tool Room Adjoining Guards Locker Room				
Floor northeast	100,000	500	36,740	N.D.
Floor north center			32,420	N.D.
Floor center			30,260	N.D.
Floor northwest			23,760	N.D.
Floor center	100,000	1,000	27,020	N.D.
Floor center			24,840	N.D.
Floor southwest			28,100	N.D.
Floor south center			23,760	N.D.
Floor southeast			25,100	N.D.
Cabinet top (by north wall)			17,280	N.D.
Cabinet top shelf			23,760	N.D.
Cabinet bottom shelf			13,940	N.D.
Cabinet top (by south wall)			10,800	N.D.
Cabinet top shelf			17,280	N.D.
Cabinet middle shelf			23,760	N.D.
Cabinet bottom shelf			30,260	N.D.
Wall west			3,240	N.D.
Wall south			0	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Trash House				
Floor northeast			3,000	N.D.
Floor north center			2,600	N.D.
Floor southwest			4,200	N.D.
Floor center			6,300	N.D.
Floor center			8,400	N.D.
Floor center			3,000	N.D.
Floor southeast			2,000	N.D.
Floor south center			2,600	N.D.
Floor southwest			2,800	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Trash House				
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Wall north			0	N.D.
Wall outside north			0	N.D.
Wall outside east			0	N.D.
Wall outside south			0	N.D.
Wall outside west			0	N.D.
Top of building northeast			1,200	N.D.
Top of building north center			1,600	N.D.
Top of building northwest			2,000	N.D.
Top of building center			400	N.D.
Top of building center			4,200	N.D.
Top of building center			3,000	N.D.
Top of building southeast			2,600	N.D.
Top of building south center			2,000	N.D.
Top of building southwest			4,200	N.D.
Carpenter Shop (old Garage)				
Floor northeast			4,200	N.D.
Floor north center	75,000	N.D.	6,300	N.D.
Floor northwest			4,200	N.D.
Floor center	100,000	800	6,200	N.D.
Floor center			6,200	N.D.
Floor center			10,500	N.D.
Floor center	200,000	1,000	3,400	N.D.
Floor center			3,200	N.D.
Floor southwest			8,200	N.D.
Floor south center (by door)	100,000	500	8,200	N.D.
Floor southeast			10,500	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Garage door			4,200	N.D.
Garage door			3,400	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Maintenance Shop				
Floor northeast			3,000	N.D.
Floor north center			3,600	N.D.
Floor northwest	150,000	500	6,300	N.D.
Floor center	150,000	500	16,800	N.D.
Floor center			25,200	N.D.
Floor center			12,600	N.D.
Floor center			25,200	N.D.
Floor southeast			8,400	N.D.
Floor south center (by door)	200,000	2,000	14,700	N.D.
Floor southwest			16,800	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Door			6,300	N.D.
Auditorium Floor				
5 feet from north wall				
East			27,000	N.D.
East center			37,800	N.D.
Center			12,324	N.D.
West center			16,432	N.D.
West			10,270	N.D.
15 feet from north wall				
West			24,648	N.D.
West center			16,432	N.D.
Center			12,324	N.D.
East center			10,270	N.D.
East			8,216	N.D.
30 feet from north wall				
East			16,432	N.D.
East center			20,540	N.D.
Center			30,810	N.D.
West center			36,972	N.D.
West			26,702	N.D.
15 feet from south wall				
West			14,800	N.D.
West center			20,350	N.D.
Center			18,500	N.D.
East center			28,756	N.D.
East			30,810	N.D.
5 feet from south wall				
East			30,810	N.D.
East center			36,972	N.D.
Center			33,300	N.D.
West center			18,500	N.D.
West			12,950	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Auditorium Floor				
5 feet from north wall				
East			10,270	N.D.
East center			12,324	N.D.
Center			8,216	N.D.
West center			6,162	N.D.
West			8,216	N.D.
15 feet from north wall				
West			6,162	N.D.
West center			6,162	N.D.
Center			8,216	N.D.
East center			6,162	N.D.
East			8,216	N.D.
30 feet from north wall				
East			14,378	N.D.
East center			12,324	N.D.
Center			12,324	N.D.
West center			12,324	N.D.
West			8,216	N.D.
15 feet from south wall				
West			6,162	N.D.
West center			8,216	N.D.
Center			36,972	N.D.
East center			30,810	N.D.
East			36,972	N.D.
5 feet from south wall				
East			34,918	N.D.
East center			24,648	N.D.
Center			30,810	N.D.
West center			26,702	N.D.
West			30,810	N.D.
Wall Insulation				
East end of south wall in Auditorium - 4 ft. from floor			14,000	N.D.
East end of south wall in Auditorium - 4 ft. from floor			10,000	N.D.
East end of south wall in Auditorium - 4 ft. from floor			30,000	N.D.
East end of south wall in Auditorium - 6 ft. from floor			12,000	N.D.
East end of south wall in Auditorium - 6 ft. from floor			12,000	N.D.
East end of south wall in Auditorium - 6 ft. from floor			25,000	N.D.
East end of south wall in Auditorium - 6 ft. from floor			13,000	N.D.
East end of south wall in Auditorium - 6 ft. from floor			10,000	N.D.
East end of south wall in Auditorium - 6 ft. from floor			6,000	N.D.
East end of south wall in Auditorium - 10 ft. from floor			8,000	N.D.
East end of south wall in Auditorium - 10 ft. from floor			10,000	N.D.
East end of south wall in Auditorium - 10 ft. from floor			20,000	N.D.
East end of south wall in Auditorium - 10 ft. from floor			15,000	N.D.
East end of south wall in Auditorium - 10 ft. from floor			2,000	N.D.
East end of south wall in Auditorium - 10 ft. from floor			3,000	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Wall Insulation				
South wall east center in Auditorium - 4 ft. from floor			1,000	N.D.
South wall east center in Auditorium - 4 ft. from floor			1,200	N.D.
South wall east center in Auditorium - 4 ft. from floor			800	N.D.
South wall east center in Auditorium - 4 ft. from floor			1,400	N.D.
South wall east center in Auditorium - 4 ft. from floor			800	N.D.
South wall east center in Auditorium - 4 ft. from floor			1,000	N.D.
South wall east center in Auditorium - 6 ft. from floor			2,100	N.D.
South wall east center in Auditorium - 6 ft. from floor			1,500	N.D.
South wall east center in Auditorium - 6 ft. from floor			1,300	N.D.
South wall east center in Auditorium - 6 ft. from floor			2,000	N.D.
South wall east center in Auditorium - 6 ft. from floor			800	N.D.
South wall east center in Auditorium - 6 ft. from floor			1,000	N.D.
South east center in Auditorium - 10 ft. from floor			2,200	N.D.
South east center in Auditorium - 10 ft. from floor			2,000	N.D.
South east center in Auditorium - 10 ft. from floor			3,000	N.D.
South east center in Auditorium - 10 ft. from floor			800	N.D.
South east center in Auditorium - 10 ft. from floor			600	N.D.
South east center in Auditorium - 10 ft. from floor			500	N.D.
South wall west center in Auditorium - 4 ft. from floor			2,000	N.D.
South wall west center in Auditorium - 4 ft. from floor			3,000	N.D.
South wall west center in Auditorium - 4 ft. from floor			1,500	N.D.
South wall west center in Auditorium - 4 ft. from floor			800	N.D.
South wall west center in Auditorium - 4 ft. from floor			1,000	N.D.
South wall west center in Auditorium - 4 ft. from floor			6,000	N.D.
South west center in Auditorium - 6 ft. from floor			600	N.D.
South west center in Auditorium - 6 ft. from floor			1,000	N.D.
South west center in Auditorium - 6 ft. from floor			1,200	N.D.
South west center in Auditorium - 6 ft. from floor			800	N.D.
South west center in Auditorium - 6 ft. from floor			1,000	N.D.
South west center in Auditorium - 6 ft. from floor			900	N.D.
South west center in Auditorium - 10 ft. from floor			600	N.D.
South west center in Auditorium - 10 ft. from floor			1,400	N.D.
South west center in Auditorium - 10 ft. from floor			2,000	N.D.
South west center in Auditorium - 10 ft. from floor			1,800	N.D.
South west center in Auditorium - 10 ft. from floor			1,600	N.D.
South west center in Auditorium - 10 ft. from floor			1,000	N.D.
South wall west end of Auditorium - 4 ft. from floor			2,000	N.D.
South wall west end of Auditorium - 4 ft. from floor			2,000	N.D.
South wall west end of Auditorium - 4 ft. from floor			2,200	N.D.
South wall west end of Auditorium - 4 ft. from floor			1,600	N.D.
South wall west end of Auditorium - 4 ft. from floor			1,400	N.D.
South wall west end of Auditorium - 4 ft. from floor			2,000	N.D.
South west end of Auditorium - 6 ft. from floor			1,400	N.D.
South west end of Auditorium - 6 ft. from floor			1,600	N.D.
South west end of Auditorium - 6 ft. from floor			2,000	N.D.
South west end of Auditorium - 6 ft. from floor			1,800	N.D.
South west end of Auditorium - 6 ft. from floor			1,600	N.D.
South west end of Auditorium - 6 ft. from floor			1,000	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Wall Insulation				
South wall west end of Auditorium - 10 ft. from floor			800	N.D.
South wall west end of Auditorium - 10 ft. from floor			1,000	N.D.
South wall west end of Auditorium - 10 ft. from floor			1,400	N.D.
South wall west end of Auditorium - 10 ft. from floor			600	N.D.
South wall west end of Auditorium - 10 ft. from floor			800	N.D.
South wall west end of Auditorium - 10 ft. from floor			1,000	N.D.
South end of west wall in Auditorium - 4 ft. from floor			400	N.D.
South end of west wall in Auditorium - 4 ft. from floor			600	N.D.
South end of west wall in Auditorium - 4 ft. from floor			600	N.D.
South end of west wall in Auditorium - 4 ft. from floor			0	N.D.
South end of west wall in Auditorium - 4 ft. from floor			0	N.D.
South end of west wall in Auditorium - 4 ft. from floor			400	N.D.
South end of west wall in Auditorium - 6 ft. from floor			400	N.D.
South end of west wall in Auditorium - 6 ft. from floor			600	N.D.
South end of west wall in Auditorium - 6 ft. from floor			0	N.D.
South end of west wall in Auditorium - 6 ft. from floor			800	N.D.
South end of west wall in Auditorium - 6 ft. from floor			1,000	N.D.
South end of west wall in Auditorium - 6 ft. from floor			400	N.D.
South end of wall (west) in Auditorium - 10 ft. from floor			0	N.D.
South end of wall (west) in Auditorium - 10 ft. from floor			400	N.D.
South end of wall (west) in Auditorium - 10 ft. from floor			600	N.D.
South end of wall (west) in Auditorium - 10 ft. from floor			200	N.D.
South end of wall (west) in Auditorium - 10 ft. from floor			0	N.D.
South end of wall (west) in Auditorium - 10 ft. from floor			600	N.D.
North end of west wall - 4 ft. from floor			1,200	N.D.
North end of west wall - 4 ft. from floor			800	N.D.
North end of west wall - 4 ft. from floor			900	N.D.
North end of west wall - 4 ft. from floor			1,400	N.D.
North end of west wall - 4 ft. from floor			600	N.D.
North end of west wall - 6 ft. from floor			400	N.D.
North end of west wall - 6 ft. from floor			0	N.D.
North end of west wall - 6 ft. from floor			400	N.D.
North end of west wall - 6 ft. from floor			600	N.D.
North end of west wall - 6 ft. from floor			800	N.D.
North end of west wall - 6 ft. from floor			0	N.D.
North end of west wall - 10 ft. from floor			800	N.D.
North end of west wall - 10 ft. from floor			800	N.D.
North end of west wall - 10 ft. from floor			1,000	N.D.
North end of west wall - 10 ft. from floor			0	N.D.
North end of west wall - 10 ft. from floor			600	N.D.
North end of west wall - 10 ft. from floor			400	N.D.
West end of north wall - 4 ft. from floor			400	N.D.
West end of north wall - 4 ft. from floor			800	N.D.
West end of north wall - 4 ft. from floor			1,000	N.D.
West end of north wall - 4 ft. from floor			800	N.D.
West end of north wall - 4 ft. from floor			600	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Wall Insulation				
West end of north wall - 6 ft. from floor			0	N.D.
West end of north wall - 6 ft. from floor			400	N.D.
West end of north wall - 6 ft. from floor			400	N.D.
West end of north wall - 6 ft. from floor			600	N.D.
West end of north wall - 6 ft. from floor			1,000	N.D.
West end of north wall - 6 ft. from floor			800	N.D.
West end of north wall - 10 ft. from floor			400	N.D.
West end of north wall - 10 ft. from floor			600	N.D.
West end of north wall - 10 ft. from floor			800	N.D.
West end of north wall - 10 ft. from floor			1,000	N.D.
West end of north wall - 10 ft. from floor			0	N.D.
West end of north wall - 10 ft. from floor			300	N.D.
West center north wall in Auditorium - 4 ft. from floor			400	N.D.
West center north wall in Auditorium - 4 ft. from floor			600	N.D.
West center north wall in Auditorium - 4 ft. from floor			800	N.D.
West center north wall in Auditorium - 4 ft. from floor			0	N.D.
West center north wall in Auditorium - 4 ft. from floor			800	N.D.
West center north wall in Auditorium - 4 ft. from floor			1,000	N.D.
West center north wall in Auditorium - 6 ft. from floor			800	N.D.
West center north wall in Auditorium - 6 ft. from floor			1,200	N.D.
West center north wall in Auditorium - 6 ft. from floor			1,600	N.D.
West center north wall in Auditorium - 6 ft. from floor			400	N.D.
West center north wall in Auditorium - 6 ft. from floor			600	N.D.
West center north wall in Auditorium - 6 ft. from floor			800	N.D.
West center north wall in Auditorium -10 ft. from floor			600	N.D.
West center north wall in Auditorium -10 ft. from floor			400	N.D.
West center north wall in Auditorium -10 ft. from floor			400	N.D.
West center north wall in Auditorium -10 ft. from floor			0	N.D.
West center north wall in Auditorium -10 ft. from floor			800	N.D.
West center north wall in Auditorium -10 ft. from floor			300	N.D.
East center north wall in Auditorium - 4 ft. from floor			800	N.D.
East center north wall in Auditorium - 4 ft. from floor			600	N.D.
East center north wall in Auditorium - 4 ft. from floor			1,000	N.D.
East center north wall in Auditorium - 4 ft. from floor			2,000	N.D.
East center north wall in Auditorium - 4 ft. from floor			3,500	N.D.
East center north wall in Auditorium - 4 ft. from floor			1,000	N.D.
East center north wall in Auditorium - 6 ft. from floor			1,200	N.D.
East center north wall in Auditorium - 6 ft. from floor			1,400	N.D.
East center north wall in Auditorium - 6 ft. from floor			800	N.D.
East center north wall in Auditorium - 6 ft. from floor			1,000	N.D.
East center north wall in Auditorium - 6 ft. from floor			900	N.D.
East center north wall in Auditorium - 6 ft. from floor			800	N.D.
East center north wall in Auditorium - 10 ft. from floor			2,200	N.D.
East center north wall in Auditorium - 10 ft. from floor			2,000	N.D.
East center north wall in Auditorium - 10 ft. from floor			3,000	N.D.
East center north wall in Auditorium - 10 ft. from floor			800	N.D.
East center north wall in Auditorium - 10 ft. from floor			500	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Wall Insulation				
East end of north wall in Auditorium - 4 ft. from floor			800	N.D.
East end of north wall in Auditorium - 4 ft. from floor			1,000	N.D.
East end of north wall in Auditorium - 4 ft. from floor			2,000	N.D.
East end of north wall in Auditorium - 4 ft. from floor			2,500	N.D.
East end of north wall in Auditorium - 4 ft. from floor			1,000	N.D.
East end of north wall in Auditorium - 4 ft. from floor			600	N.D.
East end of north wall in Auditorium - 6 ft. from floor			800	N.D.
East end of north wall in Auditorium - 6 ft. from floor			800	N.D.
East end of north wall in Auditorium - 6 ft. from floor			800	N.D.
East end of north wall in Auditorium - 6 ft. from floor			1,000	N.D.
East end of north wall in Auditorium - 6 ft. from floor			1,500	N.D.
East end of north wall in Auditorium - 6 ft. from floor			800	N.D.
East end of north wall in Auditorium - 10 ft. from floor			800	N.D.
East end of north wall in Auditorium - 10 ft. from floor			1,000	N.D.
East end of north wall in Auditorium - 10 ft. from floor			600	N.D.
East end of north wall in Auditorium - 10 ft. from floor			400	N.D.
East end of north wall in Auditorium - 10 ft. from floor			400	N.D.
East end of north wall in Auditorium - 10 ft. from floor			800	N.D.
North end of east wall in Auditorium - 4 ft. from floor			400	N.D.
North end of east wall in Auditorium - 4 ft. from floor			800	N.D.
North end of east wall in Auditorium - 4 ft. from floor			2,000	N.D.
North end of east wall in Auditorium - 4 ft. from floor			3,000	N.D.
North end of east wall in Auditorium - 4 ft. from floor			2,500	N.D.
North end of east wall in Auditorium - 4 ft. from floor			400	N.D.
North end of east wall in Auditorium - 6 ft. from floor			600	N.D.
North end of east wall in Auditorium - 6 ft. from floor			400	N.D.
North end of east wall in Auditorium - 6 ft. from floor			1,000	N.D.
North end of east wall in Auditorium - 6 ft. from floor			800	N.D.
North end of east wall in Auditorium - 6 ft. from floor			600	N.D.
North end of east wall in Auditorium - 6 ft. from floor			600	N.D.
North end of east wall in Auditorium - 10 ft. from floor			600	N.D.
North end of east wall in Auditorium - 10 ft. from floor			1,000	N.D.
North end of east wall in Auditorium - 10 ft. from floor			1,200	N.D.
North end of east wall in Auditorium - 10 ft. from floor			400	N.D.
North end of east wall in Auditorium - 10 ft. from floor			600	N.D.
North end of east wall in Auditorium - 10 ft. from floor			800	N.D.
East Side of Auditorium (Outside)				
South end by Boiler Room			568	N.D.
South end by Boiler Room			852	N.D.
South end by Boiler Room			0	N.D.
South end by Boiler Room			1,136	N.D.
South end by Boiler Room			284	N.D.
North end by First Aid Room			852	N.D.
North end by First Aid Room			568	N.D.
North end by First Aid Room			1,136	N.D.
North end by First Aid Room			0	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
East Side of Auditorium (Outside)				
South wall of hot storage (outside)			1,420	N.D.
South wall of hot storage (outside)			1,704	N.D.
South wall of hot storage (outside)			1,136	N.D.
South wall of hot storage (outside)			1,420	N.D.
South wall of hot storage (outside)			852	N.D.
South wall of Guards Locker Room (outside)			5,550	N.D.
South wall of Guards Locker Room (outside)			8,250	N.D.
South wall of Guards Locker Room (outside)			4,260	N.D.
South wall of Guards Locker Room (outside)			3,692	N.D.
South wall of Maintenance Shop (outside)			1,420	N.D.
South wall of Maintenance Shop (outside)			852	N.D.
South wall of Maintenance Shop (outside)			568	N.D.
South wall of Maintenance Shop (outside)			1,136	N.D.
South wall of Maintenance Shop (outside)			0	N.D.
South wall of Carpenter Shop (outside)			568	N.D.
South wall of Carpenter Shop (outside)			852	N.D.
South wall of Carpenter Shop (outside)			284	N.D.
South wall of Carpenter Shop (outside)			568	N.D.
East wall of Carpenter Shop (outside)			0	N.D.
East wall of Carpenter Shop (outside)			0	N.D.
East wall of Carpenter Shop (outside)			0	N.D.
East wall of Carpenter Shop (outside)			0	N.D.
North wall of Old Locker Room (outside)			568	N.D.
North wall of Old Locker Room (outside)			1,704	N.D.
North wall of Old Locker Room (outside)			2,272	N.D.
North wall of Old Locker Room (outside)			1,136	N.D.
Janitor's Quarters (South Room)				
Floor northeast			5,500	N.D.
Floor north center			8,250	N.D.
Floor northwest			8,250	N.D.
Floor center			11,000	N.D.
Floor center			5,500	N.D.
Floor center			11,000	N.D.
Floor southeast			11,000	N.D.
Floor south center			8,250	N.D.
Floor southwest			5,500	N.D.
Wall north			0	N.D.
Wall east			0	N.D.
Wall south			0	N.D.
Wall west			0	N.D.
Radiator			3,408	N.D.
Window sill east			2,840	N.D.
Window sill south			3,690	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Janitor's Quarters				
Hallway south floor			22,000	N.D.
Hallway center floor			16,500	N.D.
Hallway north floor			13,750	N.D.
Wall west			0	N.D.
Wall east			0	N.D.
Shower Room				
Floor north			16,500	N.D.
Floor south			22,000	N.D.
Lavatory			852	N.D.
East window sill			5,500	N.D.
Shower cabinet			11,000	N.D.
North Room				
Floor northeast			16,500	N.D.
Floor north center (by door)			22,000	N.D.
Floor northwest			13,750	N.D.
Floor center			16,500	N.D.
Floor center			16,500	N.D.
Floor center			22,000	N.D.
Floor southeast			13,750	N.D.
Floor south center			13,750	N.D.
Floor southwest			16,500	N.D.
East window sill			3,692	N.D.
Radiator			3,124	N.D.
North wall			0	N.D.
East wall			0	N.D.
South wall			0	N.D.
West wall			0	N.D.
Glass Roof of Auditorium				
Top ridge (horizontal copper surface) west			2,272	N.D.
Top ridge (horizontal copper surface) west center			2,840	N.D.
Top ridge (horizontal copper surface) west center			4,260	N.D.
Top ridge (horizontal copper surface) center			5,112	N.D.
Top ridge (horizontal copper surface) east center			3,124	N.D.
Top ridge (horizontal copper surface) east center			5,680	N.D.
Top ridge (by precipitron exhaust) east			13,750	N.D.
Top ridge (by precipitron exhaust) east			22,000	N.D.
Glass part of roof north side east			0	N.D.
Glass part of roof north side east center			0	N.D.
Glass part of roof north side center			0	N.D.
Glass part of roof north side west center			0	N.D.
Glass part of roof north side west			0	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Glass Roof of Auditorium				
Glass part of roof south side east			0	N.D.
Glass part of roof south side east center			0	N.D.
Glass part of roof south side center			0	N.D.
Glass part of roof south side west center			0	N.D.
Glass part of roof south side west			0	N.D.
Lower edge of glass north side			0	N.D.
Lower edge of glass north side			0	N.D.
Lower edge of glass north side			0	N.D.
Lower edge of glass north side			0	N.D.
Eaves trough on north side of roof			8,250	N.D.
Eaves trough on north side of roof			8,250	N.D.
Eaves trough on north side of roof			8,250	N.D.
Eaves trough on north side of roof			5,500	N.D.
Main Guard House				
Floor northeast			16,200	N.D.
Floor north center			12,960	N.D.
Floor northwest			19,440	N.D.
Floor center			17,280	N.D.
Floor center			20,520	N.D.
Floor center			8,640	N.D.
Floor southeast			12,960	N.D.
Floor south center			16,200	N.D.
Floor southeast			21,600	N.D.
South window sill			12,960	N.D.
East window sill			19,440	N.D.
North window sill			22,680	N.D.
West window sill			14,040	N.D.
North wall			0	N.D.
East wall			0	N.D.
South wall			0	N.D.
West wall			0	N.D.
Counter			11,880	N.D.
Outside walls			0	N.D.
Top (outside)			4,320	N.D.
South Guard House				
Floor northeast			4,108	N.D.
Floor north center			12,324	N.D.
Floor northwest			6,152	N.D.
Floor center			8,216	N.D.
Floor center			4,108	N.D.
Floor southeast			8,216	N.D.
Floor south center			6,152	N.D.
Floor southwest			10,270	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
South Guard House				
East window sill			4,108	N.D.
North window sill			6,152	N.D.
West window sill			4,108	N.D.
South window sill			4,108	N.D.
Locker on south side of room			6,152	N.D.
East wall			0	N.D.
South wall			0	N.D.
West wall			0	N.D.
North wall			0	N.D.
South wall outside			0	N.D.
East wall outside			0	N.D.
North wall outside			0	N.D.
West wall outside			0	N.D.
Roof			1,152	N.D.
Roof			4,108	N.D.
East Guard House				
Floor northwest			14,378	N.D.
Floor northeast			16,432	N.D.
Floor southeast			12,324	N.D.
Floor southwest			16,432	N.D.
East window sill			10,270	N.D.
North window sill			6,162	N.D.
North wall			0	N.D.
East wall			0	N.D.
West wall			0	N.D.
South wall			0	N.D.
Outside wall			0	N.D.
Roof			4,108	N.D.
Guard House				
Area in front of Guard House			1,600	N.D.
Area in front of Guard House			2,400	N.D.
Area 20 ft. east of north Guard House			2,400	N.D.
Area 20 ft. east of north Guard House			600	N.D.
Area 20 ft. east of north Guard House			800	N.D.
Area 40 ft. east of north Guard House			400	N.D.
Area 40 ft. east of north Guard House			0	N.D.
Area 40 ft. east of north Guard House			0	N.D.
Area 60 ft. east of north Guard House			0	N.D.
Area 60 ft. east of north Guard House			0	N.D.
Area 60 ft. east of north Guard House			0	N.D.
Area 80 ft. east of north Guard House			0	N.D.
Area 80 ft. east of north Guard House			400	N.D.
Area 80 ft. east of north Guard House			0	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Area 100 ft. east of north Guard House			0	N.D.
Area 100 ft. east of north Guard House			0	N.D.
Area 100 ft. east of north Guard House			0	N.D.
Area 120 ft. east of north Guard House near Runnymeade			0	N.D.
Area 120 ft. east of north Guard House near Runnymeade			0	N.D.
Area 120 ft. east of north Guard House near Runnymeade			0	N.D.
Area 20 ft. west from north Guard House			0	N.D.
Area 20 ft. west from north Guard House			0	N.D.
Area 20 ft. west from north Guard House			0	N.D.
Area 40 ft. west from north Guard House			0	N.D.
Area 40 ft. west from north Guard House			0	N.D.
Area 40 ft. west from north Guard House			0	N.D.
Steps leading to old Talbott Home			1,000	N.D.
Steps leading to old Talbott Home			1,200	N.D.
Steps leading to old Talbott Home			800	N.D.
Steps leading to old Talbott Home			400	N.D.
Steps leading to old Talbott Home			600	N.D.
Wooden walkway from Guard House to Garage			16,800	N.D.
Wooden walkway from Guard House to Garage			31,500	N.D.
Wooden walkway from Guard House to Garage			25,200	N.D.
Wooden walkway from Guard House to Garage			21,000	N.D.
Wooden walkway from Guard House to Garage			31,500	N.D.
Wooden walkway from Guard House to Garage			29,400	N.D.
Steps leading from Office to north Guard House			16,800	N.D.
Steps leading from Office to north Guard House			12,600	N.D.
Steps leading from Office to north Guard House			21,000	N.D.
Steps leading from Office to north Guard House			14,700	N.D.
Steps leading from Office to north Guard House			10,500	N.D.
Steps leading from Office to north Guard House			18,900	N.D.
Steps leading from Office to north Guard House			12,600	N.D.
Left wall ascending steps to north Guard House			1,600	N.D.
Left wall ascending steps to north Guard House			1,200	N.D.
Left wall ascending steps to north Guard House			800	N.D.
Left wall ascending steps to north Guard House			1,200	N.D.
Left wall ascending steps to north Guard House			1,400	N.D.
Left wall ascending steps to north Guard House			600	N.D.
Left wall ascending steps to north Guard House			400	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Right wall ascending steps to N. Guard House			1,000	N.D.
Right wall ascending steps to N. Guard House			800	N.D.
Right wall ascending steps to N. Guard House			1,200	N.D.
Right wall ascending steps to N. Guard House			1,400	N.D.
Right wall ascending steps to N. Guard House			400	N.D.
Right wall ascending steps to N. Guard House			1,000	N.D.
Driveway from N. Gate to Garage			600	N.D.
Driveway from N. Gate to Garage			800	N.D.
Driveway from N. Gate to Garage			0	N.D.
Driveway from N. Gate to Garage			0	N.D.
Driveway from N. Gate to Garage			200	N.D.
Wall by N. Fence (W. of Guard House)			2,200	N.D.
Wall by N. Fence (W. of Guard House)			1,800	N.D.
Wall by N. Fence (W. of Guard House)			1,000	N.D.
Wall by N. Fence (W. of Guard House)			600	N.D.
Wall by N. Fence (W. of Guard House)			400	N.D.
Wall by N. Fence (W. of Guard House)			1,000	N.D.
Wooden walkway on N. side of Auditorium	104,400		Removed	
Wooden walkway on N. side of Auditorium	92,800		Removed	
Wooden walkway on N. side of Auditorium	34,800		Removed	
Wooden walkway on N. side of Auditorium	116,000		Removed	
Wooden walkway on N. side of Auditorium	58,000		Removed	
Wooden walkway on N. side of Auditorium	34,800		Removed	
South wall by fence			1,000	N.D.
South wall by fence			800	N.D.
South wall 10 ft. from fence			600	N.D.
South wall 10 ft. from fence			800	N.D.
South wall 20 ft. from fence			1,000	N.D.
South wall 20 ft. from fence			600	N.D.
South wall 40 ft. from fence			600	N.D.
South wall 40 ft. from fence			600	N.D.
South wall 60 ft. from fence			400	N.D.
Steps leading down to Fish Pond south			400	N.D.
Steps leading down to Fish Pond south			0	N.D.
Steps leading down to Fish Pond south			0	N.D.
Steps leading down to Fish Pond south			200	N.D.
Steps leading down to Fish Pond south			0	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Right gate post by S. Gate			0	N.D.
Right gate post by S. Gate			0	N.D.
Right gate post by S. Gate			0	N.D.
Right gate post by S. Gate			0	N.D.
Left gate post by S. Gate			0	N.D.
Left gate post by S. Gate			0	N.D.
Left gate post by S. Gate			0	N.D.
Left gate post by S. Gate			0	N.D.
Dirt walk around W. side of Auditorium			21,600	N.D.
Dirt walk around W. side of Auditorium			5,400	N.D.
Dirt walk around W. side of Auditorium			10,800	N.D.
Dirt walk around W. side of Auditorium			3,240	N.D.
Dirt walk around W. side of Auditorium			6,480	N.D.
Dirt walk around W. side of Auditorium			3,240	N.D.
Dirt walk around W. side of Auditorium			10,800	N.D.
Area 10 ft. away from S. Loading Dock	116,000	400	Removed	
Area 10 ft. away from S. Loading Dock	125,000	1,600	Removed	
Area 10 ft. away from S. Loading Dock			30,000	N.D.
Area 10 ft. away from S. Loading Dock	200,000	2,800	Removed	
Area 10 ft. away from S. Loading Dock	200,000	2,400	Removed	
Area 10 ft. away from S. Loading Dock	250,000	2,800	Removed	
Area 10 ft. away from S. Loading Dock	116,000	1,200	Removed	
Area 10 ft. away from S. Loading Dock			33,000	N.D.
Area 10 ft. away from S. Loading Dock	55,000	600	Removed	
Area 20 ft. away from S. Loading Dock			21,600	N.D.
Area 20 ft. away from S. Loading Dock			10,800	N.D.
Area 20 ft. away from S. Loading Dock			21,600	N.D.
Area 20 ft. away from S. Loading Dock			8,640	N.D.
Area 20 ft. away from S. Loading Dock			9,720	N.D.
Area 20 ft. away from S. Loading Dock			6,480	N.D.
Area 20 ft. away from S. Loading Dock			17,280	N.D.
Area 20 ft. away from S. Loading Dock			27,020	N.D.
Area 20 ft. away from S. Loading Dock			21,600	N.D.
Area 20 ft. away from S. Loading Dock			10,800	N.D.
Area 20 ft. away from S. Loading Dock			21,600	N.D.
Area 20 ft. away from S. Loading Dock			8,640	N.D.
Area 20 ft. away from S. Loading Dock			9,720	N.D.
Area 20 ft. away from S. Loading Dock			6,480	N.D.
Area 20 ft. away from S. Loading Dock			17,280	N.D.
Area 20 ft. away from S. Loading Dock			27,020	N.D.
Area 20 ft. away from S. Loading Dock			28,100	N.D.
Area 20 ft. away from S. Loading Dock			30,260	N.D.
Area 20 ft. away from S. Loading Dock			15,020	N.D.
Area 20 ft. away from S. Loading Dock			7,560	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Area 30 ft. away from S. Loading Dock			5,400	N.D.
Area 30 ft. away from S. Loading Dock			3,240	N.D.
Area 30 ft. away from S. Loading Dock			17,280	N.D.
Area 30 ft. away from S. Loading Dock			7,560	N.D.
Area 30 ft. away from S. Loading Dock			10,800	N.D.
Area 30 ft. away from S. Loading Dock			12,860	N.D.
Area 30 ft. away from S. Loading Dock			13,940	N.D.
Area 30 ft. away from S. Loading Dock			7,560	N.D.
Area 30 ft. away from S. Loading Dock			6,480	N.D.
Area 40 ft. away from S. Loading Dock			7,560	N.D.
Area 40 ft. away from S. Loading Dock			4,320	N.D.
Area 40 ft. away from S. Loading Dock			3,240	N.D.
Area 40 ft. away from S. Loading Dock			5,400	N.D.
Area 40 ft. away from S. Loading Dock			32,420	N.D.
Area 40 ft. away from S. Loading Dock			36,740	N.D.
Area 40 ft. away from S. Loading Dock			10,800	N.D.
Area 40 ft. away from S. Loading Dock			8,640	N.D.
Area 40 ft. away from S. Loading Dock			9,720	N.D.
Area 50 ft. away from S. Loading Dock			7,560	N.D.
Area 50 ft. away from S. Loading Dock			10,800	N.D.
Area 50 ft. away from S. Loading Dock			6,480	N.D.
Area 50 ft. away from S. Loading Dock			8,640	N.D.
Area 50 ft. away from S. Loading Dock			7,560	N.D.
Area 50 ft. away from S. Loading Dock			6,480	N.D.
Area 50 ft. away from S. Loading Dock			5,400	N.D.
Area 50 ft. away from S. Loading Dock			4,320	N.D.
Concrete Slab East of Auditorium				
Northeast corner			10,800	N.D.
North center			8,640	N.D.
Northwest corner			9,720	N.D.
Center			11,780	N.D.
Center			21,600	N.D.
Center			27,020	N.D.
Southeast corner			35,660	N.D.
South center			55,000	N.D.
Southwest corner			21,600	N.D.
Walkway around east side of Auditorium			43,200	N.D.
Walkway around east side of Auditorium			36,740	N.D.
Walkway around east side of Auditorium			45,360	N.D.
Walkway around east side of Auditorium			47,520	N.D.
Walkway around east side of Auditorium			16,200	N.D.
Walkway around east side of Auditorium			13,940	N.D.
Walkway around east side of Auditorium			36,740	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Concrete steps on East side of Auditorium			16,200	N.D.
Concrete steps on East side of Auditorium			3,420	N.D.
Concrete steps on East side of Auditorium			23,760	N.D.
Concrete steps on East side of Auditorium			16,200	N.D.
Concrete steps on East side of Auditorium			15,020	N.D.
Concrete steps on East side of Auditorium			23,760	N.D.
East Driveway Macadam Surface	250,000	600	Removed	
East Driveway Macadam Surface	225,000	800	Removed	
East Driveway Macadam Surface	250,000	600	Removed	
East Driveway Macadam Surface	225,000	1,000	Removed	
East Driveway Macadam Surface	100,000	N.D.	Removed	
East Driveway Macadam Surface	80,000	N.D.	Removed	
East Driveway Macadam Surface	32,420	N.D.	Removed	
East Driveway Macadam Surface	24,840	N.D.	Removed	
East Driveway Macadam Surface	21,600	N.D.	Removed	
East Driveway Macadam Surface	80,000	N.D.	Removed	
East Driveway Macadam Surface	36,740	N.D.	Removed	
North Gate			1,000	N.D.
North Gate			600	N.D.
North Gate			400	N.D.
North Gate			0	N.D.
North Gate			0	N.D.
Fence toward Garage (from North Gate)			0	N.D.
Fence toward Garage (from North Gate)			0	N.D.
Fence toward Garage (from North Gate)			0	N.D.
Fence toward Garage (from North Gate)			0	N.D.
Fence toward Garage (from North Gate)			0	N.D.
Fence West of North Guard House			0	N.D.
Fence West of North Guard House			0	N.D.
Fence West of North Guard House			0	N.D.
Fence West of North Guard House			0	N.D.
Fence West of North Guard House			0	N.D.
Fence West of North Guard House			0	N.D.
Fence West of North Guard House			0	N.D.
South Gate			8,000	N.D.
South Gate			400	N.D.
South Gate			7,000	N.D.
South Gate			600	N.D.
South Gate			800	N.D.
South Gate			1,000	N.D.

Location	Preliminary Readings Direct	Preliminary Readings Wipe	Final Readings Direct	Final Readings Wipe
Fence from South Gate to East Gate			0	N.D.
Fence from South Gate to East Gate			0	N.D.
Fence from South Gate to East Gate			0	N.D.
Fence from South Gate to East Gate			0	N.D.
Fence from South Gate to East Gate			0	N.D.
East Gate			400	N.D.
East Gate			600	N.D.
East Gate			300	N.D.
East Gate			500	N.D.
East Gate			0	N.D.
East Gate			200	N.D.

Ceiling Insulation

Four areas of 280 square feet each in different areas of the ceiling were surveyed on November 25, 1949. The following direct readings were obtained (in d./min./100 cm.^{2}):

Area Reading	1	2	3	4
	17,100	20,520	9,120	45,000
	14,820	60,000	5,700	20,520
	11,400	60,000	2,280	14,820
	9,120	0	6,840	30,000
	45,000	2,280	11,400	15,960
	10,260	2,280	7,980	5,700
	45,000	2,280	13,680	11,400
	45,000	2,280	10,260	30,000
	15,000	3,420	6,840	17,100
	4,800	3,420	4,940	13,680
		1,140	2,280	14,820
		1,140	6,840	12,540
		9,120	6,840	14,820
		12,540	7,980	30,000
		13,680	4,560	12,540
		9,120	5,700	6,840
		11,400	6,840	13,680
		19,380	11,400	18,240
				30,000

On two different occasions, sections of the insulation were taken down and surveyed. Insulation comes in two parts with paper backing on each section. In both cases wipe tests of all surfaces were not detectable or barely detectable. Wipe tests of paper on which insulation was laid gave no readings, which indicates at least that dusting is not excessive or likely to be a problem.

Twenty wipe tests made in Area 3 were not detectable or just barely detectable (less than one division on an alpha meter calibrated to read 240 d./min./division).

On the basis of this data, ceiling insulation was left for removal and disposal by the contractor.

TAB G

TAB G - AIR SAMPLES

AIR SAMPLES AT UNIT IV IN d./min./m.^{3}

	Number of Samples						
	0 to 1,000	1,000 to 3,000	3,000 to 10,000	10,000 to 25,000	25,000 to 50,000	*Over 50,000	TOTAL
June	72	31	14	4	4	4	129
July	61	33	6	9	1	0	110
August	8	14	2	0	0	0	24
September	25	61	27	17	2	3	135
October	5	34	65	45	24	19	192
November	9	44	51	32	13	5	154
December	20	52	60	29	12	4	177
January	14	15	9	0	0	0	38
TOTAL	214	284	234	136	56	35	959
Per Cent of Total	22.4	29.6	24.4	14.2	5.8	3.6	100.0

* These samples were mostly in the 50,000 to 100,000 range, with the maximum single sample being 700,000 d./min./m.^{3}

TAB H

TAB H - SUMMARY OF URINE SAMPLES

SUMMARY OF URINE SAMPLES AT UNIT IV IN c./min./50 ml.

	Number of Samples						
	0 to 2	3 to 5	6 to 8	9 to 11	*12 to 30	Contaminated Plus Insufficient	TOTAL
June	13	8	5	2	6	4	38
July	15	0	3	3	5	2	28
August	12	4	3	1	0	2	22
September	22	8	3	0	0	3	36
October	58	27	10	6	0	5	106
November	32	25	11	6	3	6	83
December	57	24	8	4	5	8	106
January	23	9	0	2	0	1	35
TOTAL	232	105	43	24	19	31	454
Per Cent of Total	51.1	23.1	9.5	5.3	4.2	6.8	100.0

* Three men only became "hot" during the work at Unit IV, with maximum count of 30 c./min./50 ml. This involved a total of 360 manhours out of approximately 18,000 manhours expended on the project.

MOUND LABORATORY-MONSANTO
Central File No. MLM-461 (T)

UNCLASSIFIED

July 19, 1950

SECRET TRANSMITTAL

DOCUMENT TRANSMITTED CONTAINS RESTRICTED DATA

When Separated From Enclosures, Handle
This Document As UNCLASSIFIED

Mr. F. H. Belcher
Area Manager, Dayton Area
United States Atomic Energy Commission
Mound Laboratory
Miamisburg, Ohio

Dear Mr. Belcher:

Subject: COMPLETION REPORT OF DISPOSAL OF UNIT IV

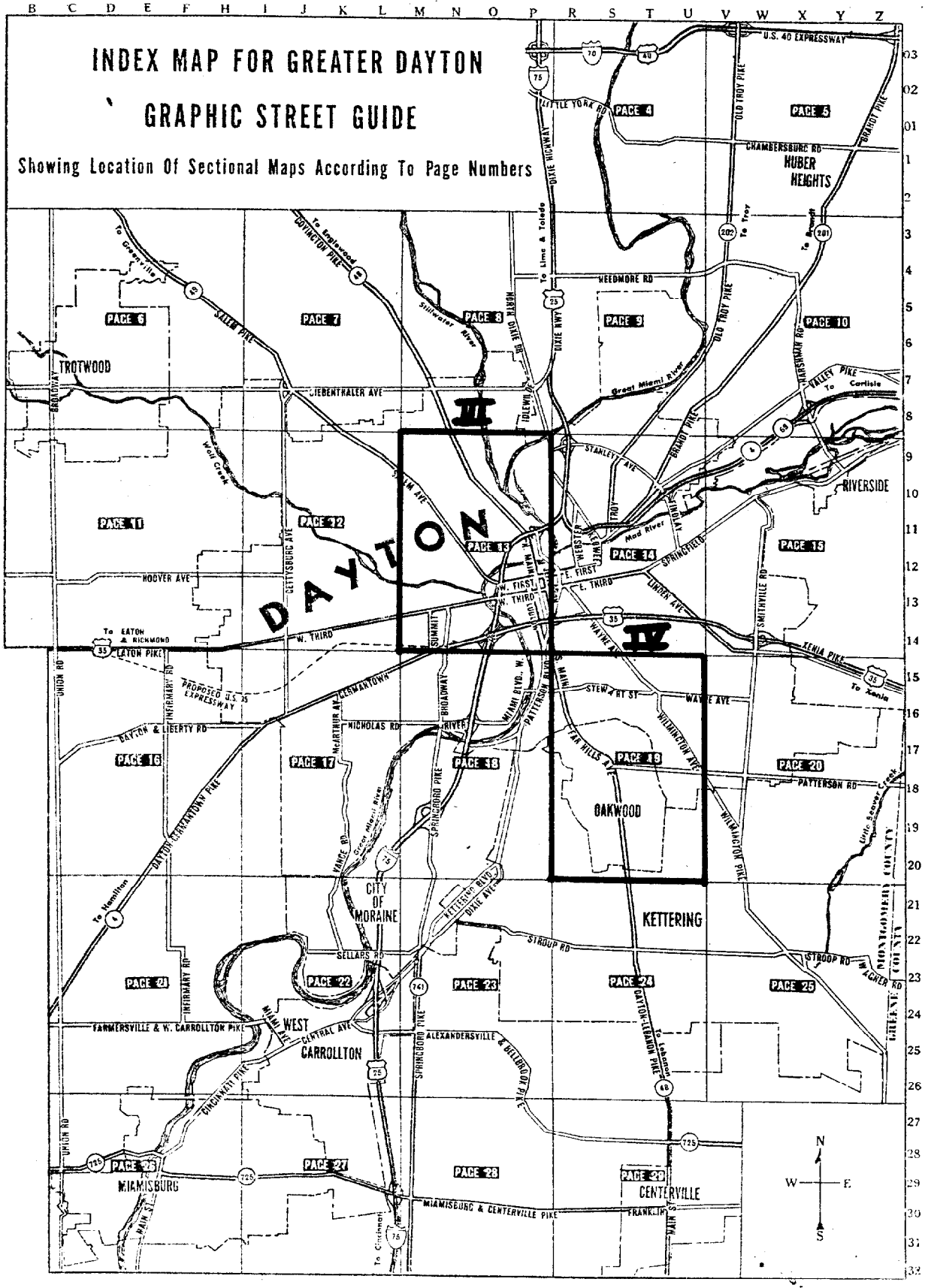
Attached herewith are five copies of our Completion report on the Disposal of Units III and IV. I think our men deserve great credit for the orderly and expeditious manner in which this vexing job was accomplished and at a cost considerably less than the estimate. Let us hope that the School Board takes back Unit III with no more fuss, so that we can have both of these sites completely off our hands.

Very truly yours,

M. M. Haring,
Laboratory Director.

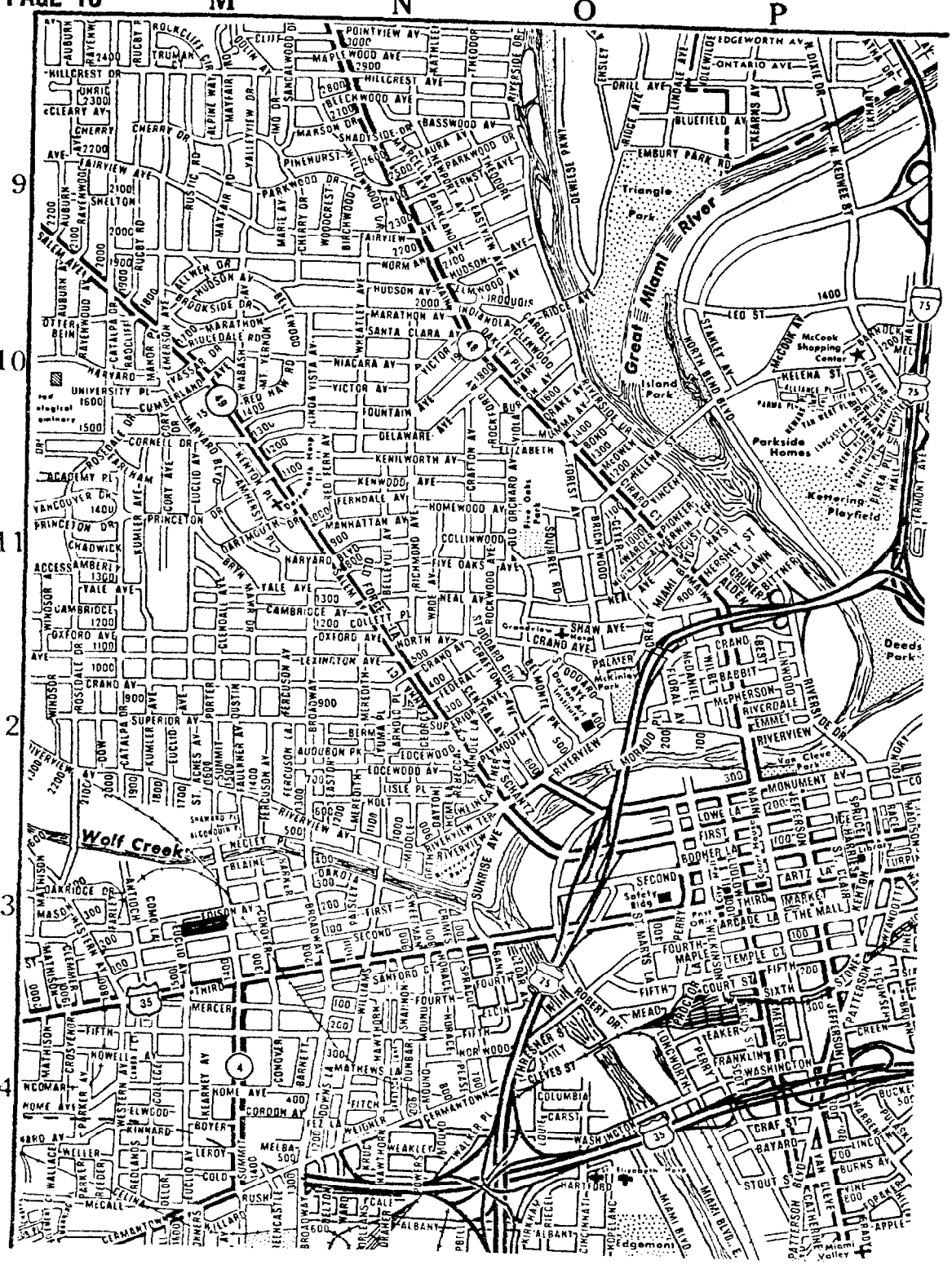
MMH:jdb
cc: Mr. Carroll A. Hochwalt
Dr. J. J. Burbage
Mr. F. L. Culbreth
Central Files ✓

UNCLASSIFIED


INDEX MAP FOR GREATER DAYTON
GRAPHIC STREET GUIDE
Showing Location Of Sectional Maps According To Page Numbers
B C D E F H I J K L M N O P R S T U V W X Y Z
01 02 03 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
PAGE 4
PAGE 5
PAGE 6
PAGE 7
PAGE 8
PAGE 9
PAGE 10
PAGE 11
PAGE 12
PAGE 13
PAGE 14
PAGE 15
PAGE 16
PAGE 17
PAGE 18
PAGE 19
PAGE 20
PAGE 21
PAGE 22
PAGE 23
PAGE 24
PAGE 25
PAGE 26
PAGE 27
PAGE 28
PAGE 29
DAYTON
TROTWOOD
HUBER HEIGHTS
RIVERSIDE
OAKWOOD
KETTERING
CITY OF MORAINE
WEST CARROLLTON
MIAMISBURG
CENTERVILLE
U.S. 40 EXPRESSWAY
LITTLE YORK RD
CHAMBERSBURG RD
NEEDMORE RD
SALEM PIKE
COVINGTON PIKE
To Englewood
To Greenville
To Lima & Toledo
DIXIE HIGHWAY
OLD TROY PIKE
BRANDT PIKE
To Troy
To Sidney
To Piqua
VALLEY PIKE
To Carlisle
Stillwater River
Great Miami River
Mad River
Wolf Creek
LIEBENTHALER AVE
HOOVER AVE
STANLEY AVE
SPRINGFIELD
LINDEN AVE
KEMA PIKE
To Xenia
W. FIRST
W. THIRD
E. FIRST
E. THIRD
MAIN ST
SUMMIT
WAYNE AVE
STEWART ST
To EATON & RICHMOND
EATON PIKE
PROPOSED U.S. 35 EXPRESSWAY
DAYTON & LIBERTY RD
NICHOLAS RD
DAYTON-GERMANTOWN PIKE
To Hamilton
GERMANTOWN
BROADWAY
RIVER
McARTHUR AVE
INFIRMARY RD
UNION RD
SPRINGBORO PIKE
MIAMI BLVD. W.
PATTERSON BLVD
WILMINGTON AVE
PATTERSON RD
WILMINGTON PIKE
FAIR HILLS
VANCE RD
KETTERING BLVD
DIXIE AVE
SELLARS RD
STROOP RD
ACHER RD
Little Beaver Creek
MONTGOMERY COUNTY
GREENE COUNTY
FARMERSVILLE & W. CARROLLTON PIKE
MIAMI AVE
CENTRAL AVE
ALEXANDERSVILLE & BELLBROOK PIKE
DAYTON-LEBANON PIKE
To Lebanon
CINCINNATI PIKE
To Cincinnati
MIAMISBURG & CENTERVILLE PIKE
FRANKLIN
MAIN ST
N
W
E
S

UNIT III

PAGE 13



UNIT IV

PAGE 19